TEXT.
910.02
COWPE
1878-
2

WARREN'S BRIEF COURSE IN GEOGRAPHY.

COWPERTH[illegible] Co.
PHILA[illegible]IA.

M. M. H.

F. Y.

A

Brief Course

In

Geography

PHILADELPHIA

COWPERTHWAIT & CO

1878

Entered according to the Act of Congress, in the year 1874, by COWPERTHWAIT & CO., in the Office of the Librarian of Congress at Washington.

WARREN'S

SERIES OF GEOGRAPHIES.

I. Warren's Primary Geography.

II. Warren's Common-School Geography; *or*, Warren's Brief Course in Geography.

III. Warren's Physical Geography.

THIS SERIES is now thoroughly revised, giving full accounts of the recent changes and discoveries. It presents a complete Geographical Course, adapted to all grades of Schools, and is the most Compact and Economical Series published.

Warren's Primary Geography is now presented in a new dress, much simplified and improved, with new plates, new lithographed maps, and a larger page. Part I. presents the elementary principles of Geography in a series of oral lessons adapted to the capacity of young beginners; while in Part II. a brief general description of all the countries upon the globe is given.

Warren's Common-School Geography is in itself a complete manual upon the subject, and is intended for use in cities and graded schools. Two important features in which this work excels all others are:

1. The Philosophic System, in which physical geography is made the basis of political geography. The dependent relation of these two branches of the science is kept constantly in view, developing an arrangement that is uniform and consistent throughout.

2. The General Presentation, at the outset, of the Physical Features of the Country,—its mountain and river systems, its plateaus, slopes and climate,—and the constant application of these facts to illustrate the details that follow.

Warren's Brief Course in Geography is an entirely new work, intended as a Shorter Course for those who have not time for a more extended study of the subject. Nothing is stated in the text which the pupil can learn by studying the map; and the map questions are accompanied by brief statements which arrange the physical features in a natural order.

The Maps in the body of the work are designed only for use in schools; therefore none but the leading towns and most important features are given, and *nothing is represented which is not referred to* either in text or question.

A set of valuable Reference Maps is given in the last part of the book. These are carefully engraved on copper, and contain much more detail than would be suitable for the study maps.

Warren's Physical Geography is designed for advanced classes in Academies, Seminaries, Normal and High Schools, This book has met with the cordial approval of instructors everywhere, and is in general use throughout the country. The latest edition contains a chapter upon the System of Weather Reports and "Probabilitics."

These Geographies have been introduced and are now used in many of the best public and private schools in all parts of the country—receiving the warm approval of those teachers who have made themselves acquainted with their merits. Teachers and school-officers are respectfully requested to examine these works, before determining on the text-books on the subject of Geography to be used in the schools under their charge.

PREFACE.

This "Brief Course in Geography" is intended for the use of those who have not time for a more extended study of the subject. It is complete in itself, but other books of the same series may be used in connection with it, if desired.

The general plan of the "Common School Geography," which has met with such warm approval, has been adhered to in this book, while several new and valuable features have been added.

The present volume differs, however, from the "Common School Geography" in giving less detail in all departments of the study, thus rendering the essential facts more prominent and more easily learned.

It teaches Geography as a science, and not as a collection of unassociated facts. The pupil is led to see that the position of a country and the nature of its surface determine its climate, and consequently the character of its plants, animals and inhabitants.

It presents the physical features and the most interesting facts, of every country in a brief and simple manner, and classifies them in such a way that they can be easily remembered. Thus, the *Productions* (usually a tiresome lesson) are classified,—*First*, according to their nature,—Animal, Vegetable, and Mineral; *Second*, according to their uses: as Food, Shelter, Clothing; *Third*, according to the occupation of the producer: as Farming, Mining, Manufacturing, etc. Associated in this way, they are easily learned and never forgotten.

Nothing is stated in the text which the pupil can learn by studying the map; and the map questions are accompanied by brief statements which arrange the physical features in a natural order.

The maps in the body of the book are designed for use in school, and not for general reference; therefore only the leading towns and most important features are given, and nothing is represented upon them which is not referred to either in the text or questions.

A set of valuable Reference Maps is given in the last part of the book. These are carefully engraved on copper, and contain much more detail than would be suitable for the study maps.

In the preparation of the volume unusual pains have been taken to attain the highest degree of excellence, both as regards literary and mechanical execution.

The Illustrations are all from original designs, and have been prepared expressly for this book by the most eminent artists in the country.

The Maps have been drawn with great care by Mr. E. A. Apgar, State Superintendent of Schools in New Jersey, author of the well-known system of map drawing used in this book.

The Text and Questions have been written by Mr. Arthur Sumner, who prepared this part of the "Common School Geography" and a considerable portion of the "Physical Geography."

SUGGESTIONS TO THE TEACHER.

Experienced teachers differ as to the order in which Geographical study should be pursued, but the simple and practical manner in which this book is arranged will enable them to follow without difficulty whatever method of teaching they may prefer.

The following general suggestions, however, may be of service:—On assigning a lesson, require the class to read over the text and answer the questions upon it, thus securing in advance a clear understanding of the subject.

The Map Questions on the section included in the lesson should be studied and answered before proceeding to the study of the Text. These questions are of such a nature that the pupils learn *by sight* and without effort, a great deal which in other works is described in the text.

The Questions on the Text are intended to ascertain, not whether the pupil can recite the exact words of the book, but whether he comprehends the subject. The teacher will find it a valuable exercise to multiply these Questions, and to cross-examine the pupils in order to discover whether they are learning mere words or essential facts.

Many of the Test Questions in the book are not directly answered in the paragraphs to which they are annexed, the information having been previously given in the General Description.

For example: In describing a section of the United States, the Surface, Climate, Productions, etc., of the section are given, but not those of each particular State. Yet in the study of each State, the teacher will find Questions (and should invent many more) upon its Surface, Climate, Rivers, Productions, and other points of interest.

The Questions on the Map and Text combined should be studied last.

The System of Map Drawing is placed in the last part of the book in order that any other system may be used, or the exercise may be omitted without interfering with the plan of the work. When used, the Map should be drawn in connection with the study of the corresponding section. The Model Lesson on page 82 shows a good method of conducting a class-exercise in Map Drawing.

TABLE OF CONTENTS.

PART I.

INTRODUCTORY.

CHAPTER	PAGE
I.—FORM AND SIZE OF THE EARTH	5
II.—MOTIONS OF THE EARTH	6
III.—LATITUDE AND LONGITUDE	6
IV.—REPRESENTATIONS OF THE EARTH	7
V.—FORMS OF THE LAND	8
VI.—SURFACE OF THE LAND	8
VII.—THE OCEAN	9
VIII.—INLAND WATERS	9
IX.—CLIMATE	10
X.—VEGETATION	12
XI.—MAN	12
XII.—OCCUPATIONS	13

PART II.

DESCRIPTION OF COUNTRIES.

I.—THE HEMISPHERES	14
II.—NORTH AMERICA	16
III.—THE UNITED STATES	22
IV.—THE EASTERN OR NEW ENGLAND STATES	24
V.—THE MIDDLE ATLANTIC STATES	28
VI.—THE SOUTHERN STATES	32
VII.—THE CENTRAL STATES	36
VIII.—THE PACIFIC STATES AND TERRITORIES	40
IX.—REVIEW OF THE UNITED STATES	46
X.—SOUTH AMERICA	48
XI.—EUROPE	54
XII.—CENTRAL EUROPE	60
XIII.—THE BRITISH ISLES	64
XIV.—AFRICA	66
XV.—ASIA	70
XVI.—AUSTRALASIA AND POLYNESIA	76
XVII.—COMMERCE OF THE WORLD	78
GENERAL REVIEW	80
A TREATISE ON MAP DRAWING	81
PRONOUNCING AND EXPLANATORY VOCABULARY	89
STATISTICAL TABLES	91

INDEX TO THE MAPS.

1. THE HEMISPHERES	7
2. THE EARTH IN HEMISPHERES	15
3. NORTH AMERICA	21
4. THE UNITED STATES	23
5. THE EASTERN OR NEW ENGLAND STATES	27
6. THE MIDDLE ATLANTIC STATES	31
7. THE SOUTHERN STATES	35
8. THE CENTRAL STATES	39
9. THE PACIFIC STATES AND TERRITORIES	45
10. RAILROAD MAP OF THE UNITED STATES	47
11. SOUTH AMERICA	53
12. EUROPE	59
13. CENTRAL EUROPE	63
14. THE BRITISH ISLES	65
15. AFRICA	69
16. ASIA	75
17. AUSTRALIA	77
18. COMMERCIAL MAP OF THE WORLD	79

REFERENCE MAPS.

1. MAINE, NEW HAMPSHIRE AND VERMONT	93
2. MASSACHUSETTS, RHODE ISLAND AND CONNECTICUT	94
3. THE MIDDLE ATLANTIC STATES	95
4. THE SOUTHERN STATES	96
5. THE EAST-CENTRAL STATES	97
6. THE PACIFIC STATES AND TERRITORIES	98
7. THE WEST-CENTRAL STATES	99
8. THE BRITISH PROVINCES AND THE WEST INDIES	100
9. SOUTH AMERICA	101
10. GREAT BRITAIN AND IRELAND	102
11. WESTERN EUROPE	103
12. CENTRAL EUROPE	104

A BRIEF COURSE IN GEOGRAPHY.

PART I.

CHAPTER I.

THE EARTH.—ITS FORM AND SIZE.

THE EARTH, on which we live, and which seems to us so great a world, is really a small star, surrounded on all sides by millions of other stars.

2. Those stars which shine with a steady light are nearest to us. The Earth, the Moon and these nearest stars, are called Planets. They move around the Sun, and receive light and heat from it.

3. The stars which shine with a twinkling light are suns, a great deal larger than our own sun; but they are at such an immense distance from us that they seem like little points of light in the sky.

4. These most distant stars (or suns) are called Fixed Stars. They do not receive their light from our sun.

5. Form.—The earth is a ball or globe. It is often called The Globe. It is also called a Sphere, which is the same thing as a globe.

6. Size.—The distance around the earth is called its Circumference, and is about 25,000 miles. The distance through it is called its Diameter, and is about 8000 miles.

Questions.—Is the earth a planet or a fixed star?—Which are nearest to the earth—the planets or the fixed stars?—How are the planets warmed and lighted?—What are the fixed stars?—Why do they seem so small?—How can you tell the difference between a fixed star and a planet?—What is the form of the earth?—What is meant by its Circumference?—Its Diameter?—How many miles is the Circumference?—The Diameter?

CHAPTER II.

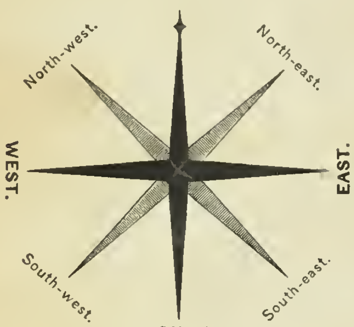
MOTIONS OF THE EARTH.

DAILY MOTION.—The earth is constantly turning around, so as to bring all parts of its surface into the light of the sun. It takes twenty-four hours, or one day, to turn completely around. So we call this movement the Daily Revolution, or Rotation, of the earth.

The sun can shine upon only one half of the earth at a time. It is Day upon one half, while it is Night upon the other.

When it is sunrise with us, it is sunset with the people on the opposite side of the globe; and while it is noon with us, it is midnight with them.

2. Sunrise and Sunset.—The earth turns around from west to east, but so steadily and quietly that we do not perceive the motion. It seems to us as if the earth were standing still, and the sun, moon and stars were rising in the east and moving to the west.



3. East and West. — The place where the sun seems to rise is called East; where it seems to set is called West.

4. North and South. — If you stand with your right hand extended toward the east, and your left hand toward the west, the North will be in front of you, and the South will be behind you.

5. The Poles.—The most northern point on the surface of the earth is called the North Pole; the most southern point is the South Pole.

6. Annual Motion.—The earth has another motion besides the daily revolution. It is forever journeying around the sun in a path which is somewhat like a circle. We call this the Annual (which means *yearly*) movement, because it takes a year to complete it.

Questions.—How is all the earth's surface brought into the light of the sun?—What is this *turning around* called?—Why is it called the *Daily* Revolution?—Why is it day upon one half of the earth while it is night upon the other?—Is it sunrise all over the earth at the same time?—When it is midnight with us, what is the time of day just opposite to us?

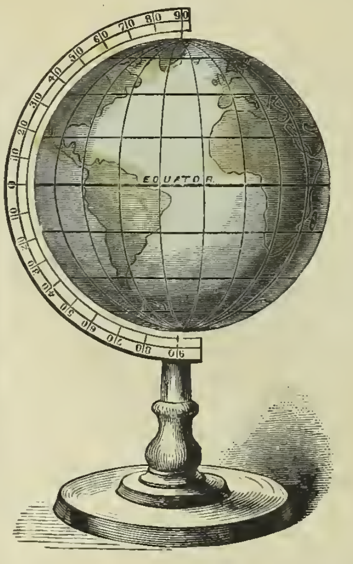
Which way does the earth turn?—Why does it seem as if the earth were standing still?—Where is East?—West?—North?—South?—North-east?—South-east?—South-west?—North-west?—What is the North Pole?—South Pole?—What is the Annual Motion of the Earth?—Why is it so called?

CHAPTER III.

LATITUDE AND LONGITUDE.

LATITUDE.—If we could draw a line completely around the earth, halfway between the Poles, it would divide its surface into two equal parts. We cannot really draw such a line upon the earth, but we can draw it upon a globe or map.

[The engraving below is a picture of a wooden globe. A globe shows the shape of the earth, as nearly as possible. The forms of the various bodies of land and water are drawn upon the surface, and the Equator and other lines are represented.]



2. The Equator.—We call this line the Equator. It divides the earth into two *equal* parts called hemispheres. The Equator is an imaginary line around the earth, halfway between the Poles.

3. Latitude.—In order to know the exact situation of places upon the earth, we first find how far they are from the Equator.

4. To help us in doing this we divide the distance from the Equator to the North Pole into 90 equal parts, called Degrees.

The distance from the Equator to the South Pole is also divided into 90 degrees. Each of these degrees of latitude is nearly 70 miles from north to south.

Every place north of the Equator is said to be in North Latitude, and every place south of the Equator is in South Latitude.

5. The Latitude of a place is its distance north or south of the Equator.

6. Longitude.—It is not enough to know how far a place is from the Equator—we must also know its distance east or west of some particular place. For this purpose we divide the whole distance around the earth into 360 equal parts, called Degrees.

7. We decide upon some particular place as a starting-point, and we say that all places east of it are in East Longitude, and all places west of it are in West Longitude.

8. There are 180 degrees of East Longitude, and 180 degrees of West Longitude.

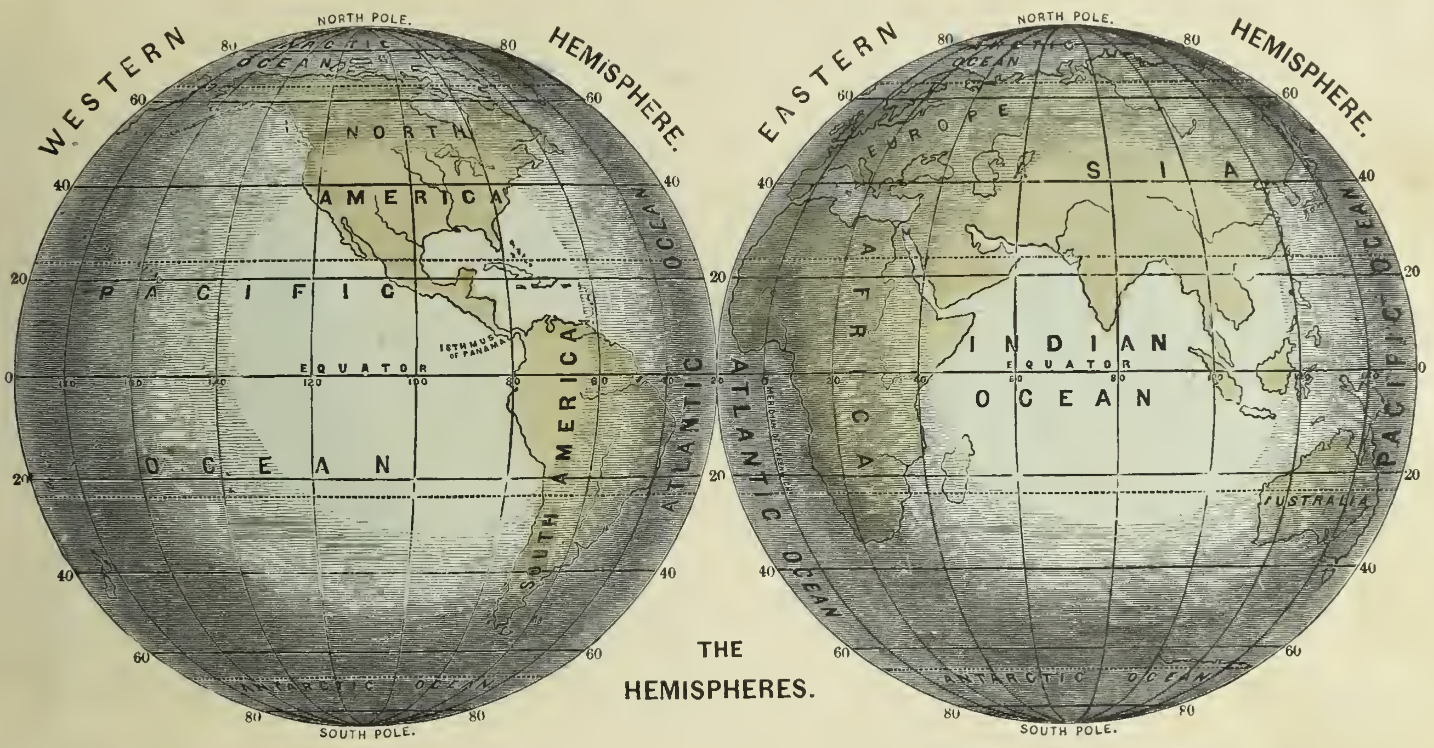
9. Longitude is usually reckoned from Greenwich, a town near London, in England.

In the United States it is sometimes reckoned from Washington; in France, from Paris; and some other nations, in like manner, compute from their principal cities.

10. The Longitude of a place means its distance east or west of some particular point.

Questions.—Why can we not draw a line around the earth?—Where can we draw it?—What is the Equator?—Is the Equator an imaginary line when drawn upon a globe or map?—Why do we wish to know how far a place is from the Equator?—Into how many parts do we divide the distance from the Equator to the North Pole?—To the South Pole?—What are these parts called?

How many miles long is a degree of latitude from north to south?—If a town is in one degree of north latitude, how many miles north of the Equator is it?—If it is in ten degrees of south latitude, how many miles is it south of the Equator?—In what direction from the Equator is a place which is in south latitude?—North latitude?—Why do we divide the circumference of the earth into 360 parts?—What are those parts called?—How many degrees of east longitude are there?—Of west longitude?—From what place is longitude usually reckoned?—Do all nations reckon from that place?—All places east of Greenwich are in what longitude?—All places west of it?—If you travel through a degree of latitude, in what direction do you go?—In going through a degree of longitude?—What is Latitude?—Longitude?



CHAPTER IV.

REPRESENTATIONS OF THE EARTH.

GLOBES.—A globe is a ball on which are drawn the forms of the principal bodies of land and water.

The earth is not perfectly round. It is somewhat flattened at the Poles. But this flattening is so small that we could not make a correct globe large enough to show it. So globes are made perfectly round.

2. **Parallels.**—The degrees of latitude are marked upon a globe by lines, called Parallels, which extend around it east and west.

All places east and west of each other are upon the same parallel; and all places upon the same parallel are east and west of each other.

3. **Meridians.**—Degrees of longitude are marked upon a globe by lines, called Meridians, which extend from the North to the South Pole.

Meridian means *mid-day*. All people who live upon the same meridian have their mid-day at the same moment.

All places directly north and south of each other are upon the same meridian; and all places upon the same meridian are north and south of each other.

A degree of longitude is nearly 70 miles wide from east to west at the Equator. But the width constantly diminishes as we go toward the Poles.

Exactly at the Poles the meridians all meet, and there is no East or West at all, and therefore no longitude.

4. **Maps.**—A Map of the earth shows the various bodies of land and water, drawn upon a flat surface.

A globe shows us only half of the earth's surface at a time. But if we should cut a globe into two equal parts and lay the halves together, as shown above, we could see the whole surface at once.

A Map of the Hemispheres shows us the earth's surface somewhat as we should see it on a globe divided into halves.

"Hemisphere" means *half a sphere*, or half a globe.

5. **The Hemispheres.**—One half of the earth is called the Eastern Hemisphere. The other half is the Western Hemisphere. We also call the northern half the Northern Hemisphere, and the southern half the Southern Hemisphere.

Questions.—What is a globe?—Why are globes made perfectly round?—How are degrees of latitude marked upon a globe?—In what direction from each other are all places upon the same parallel?—Are places upon the same parallel at the same distance from the Equator?

How are degrees of longitude marked upon a globe?—What is the meaning of the word meridian?—Is it mid-day at the same moment throughout a meridian of longitude from Pole to Pole?—Where does the sun rise first—in Greenwich, or in places west of Greenwich?—In your own town, or in places west of you?

In what direction from each other are all places on the same meridian?—Where is a degree of longitude the widest?—As you go toward either Pole, do the degrees become narrower or wider?—Where do the meridians all meet?—Where is there no longitude at all?—If you stood exactly at the North Pole, would there be any place east or west of you?—Any place south of you?—Any place north of you?—How much of the earth would be south of you?—How wide is a degree of longitude at the Equator?

What is a map?—Which is drawn upon a flat surface—a map, or a globe?—Upon which can you see the whole of the earth at once—upon a globe, or upon a map of the world?—Which shows the shape of the earth the best?—What does hemisphere mean?—What is the northern hemisphere?—The southern?—On which side of the above map is the eastern hemisphere?—The western?

QUESTIONS ON THE MAP.

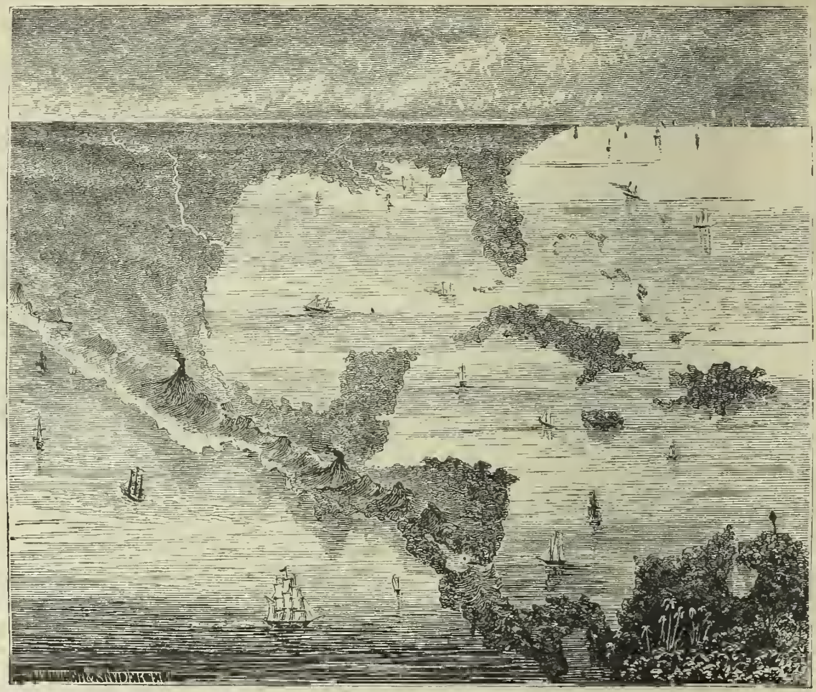
[NOTE.—*The meridians are numbered upon the Equator, on a globe or map of the hemisphere. The parallels are numbered on the sides of maps. In answering the following questions, the pupil should have this map of the hemispheres before him.*]

Is North America in north, or south latitude?—Why?—Europe?—Why?—Australia?—Why?—In what latitude is the greater part of South America?—Is any part of Asia in south latitude?—Is any part of Africa in north latitude?

In what longitude is South America—east or west?—Australia?—Asia?—North America?—In what longitude is the greater part of Europe?

Find where the 140th degree of west longitude and the 40th degree of south latitude meet.—In what ocean?—In what ocean do the 40th degree of west longitude and the 20th degree of north latitude meet?—Through what ocean does the meridian of the 180th degree of east and west longitude pass?—Through what ocean does the parallel of the 80th degree of north latitude pass?

A MAP.



A PICTURE.

CHAPTER V.

FORMS OF THE LAND.

THE Earth is supposed to be a mass of fiery liquid covered with a crust of rock, sand and soil. Upon a part of this crust lies a great body of salt water called the Ocean, or the Sea. That part of the earth's crust which rises above the ocean is called the Land.

The sea covers nearly three-fourths of the surface of the earth. The land occupies about one-fourth.

2. Continents.—The great masses of land are called Continents. The smaller bodies are islands. A continent is a great body of land entirely surrounded by water.

3. Islands.—An Island is a body of land smaller than a continent, and entirely surrounded by water.

Islands that lie close to continents are called Continental islands.

4. The Sea-coast is the land which borders on the sea.

If the coast of the continent is bold and rocky, the islands are usually of the same character. If the continent has a low and level coast, the islands near it are generally flat and either sandy or marshy.

5. A Peninsula is a body of land nearly surrounded by water.

6. An Isthmus is a narrow body of land connecting two larger bodies of land.

7. A Cape is a point of land extending into the water. If the cape is high land, it is sometimes called a Promontory.

Questions.—Of what is the crust of the earth composed?—What lies upon a part of this crust?—What is the land?

What is the difference between a continent and an island?—What is the surface of islands which lie near a bold and rocky coast?—Near a low and level coast?—What is an isthmus?—A peninsula?—A cape?—A promontory?

CHAPTER VI.

SURFACE OF THE LAND.

THE Surface of the Ocean is everywhere the same, but the Surface of the Land is uneven. Some portions of the land are much higher than others.

The high lands are called Hills, Mountains, and Plateaus. The low lands are Plains.

2. Plains.—A great extent of low land which is nearly level is called a Plain.

Some plains are as flat as the ocean in a calm. Others have a wavy surface, and are sometimes broken by low hills.

3. A Hill is a mass of rock and earth which rises higher than the surrounding land. A very high hill is called a Mountain.

The foot of a hill or mountain is called its Base. The top is the Summit. The sides are the Slopes.

We reckon the height of a mountain from its summit to the level of the sea, because that is everywhere the same.

4. Mountain Chains.—Mountains are seldom found single. They are generally in groups or chains. Many mountains together, extending in a line, make a Mountain Chain or Range.

5. Mountain Systems.—A number of mountain chains extending in the same direction, and near together, form a Mountain System.

Mountains do not rise abruptly from a level surface. The country around, for some distance, is broken into hills. A chain of mountains is always bordered by a wide tract of hills and highland.

6. A Volcano is a mountain that throws up water, ashes, mud, and melted rock called *lava*. Volcanoes are generally near the sea.

7. A Plateau, or Table-land, is a high plain. A plateau is often crossed by mountain chains; and there is usually a chain of mountains on its borders.

8. A Valley is the land lying between two mountains or chains of mountains. Some valleys are broad, low plains; others are high and narrow plateaus.

9. A Desert is a plain or table-land which is nearly or wholly barren.

Some deserts are so dry that nothing can grow upon them. Others have a scanty growth of coarse grass or low bushes, on which herds of cattle are fed.

These cattle support tribes of wandering people, who drive them about from place to place. The people who live in this unsettled way are called Nomadic (*wandering*) people.

Questions.—How does the surface of the land differ from that of the ocean?—What are high lands called?—Low lands?—What is a plain?—Are plains always perfectly flat?—What is a hill?—A mountain?—The base of a hill or mountain?—The summit?—The slope?—From what do we reckon the height of a mountain?—Suppose the surface of a plateau is seven thousand feet above the sea, and the mountain resting upon it is five thousand feet higher, what should we say was the height of the mountain?

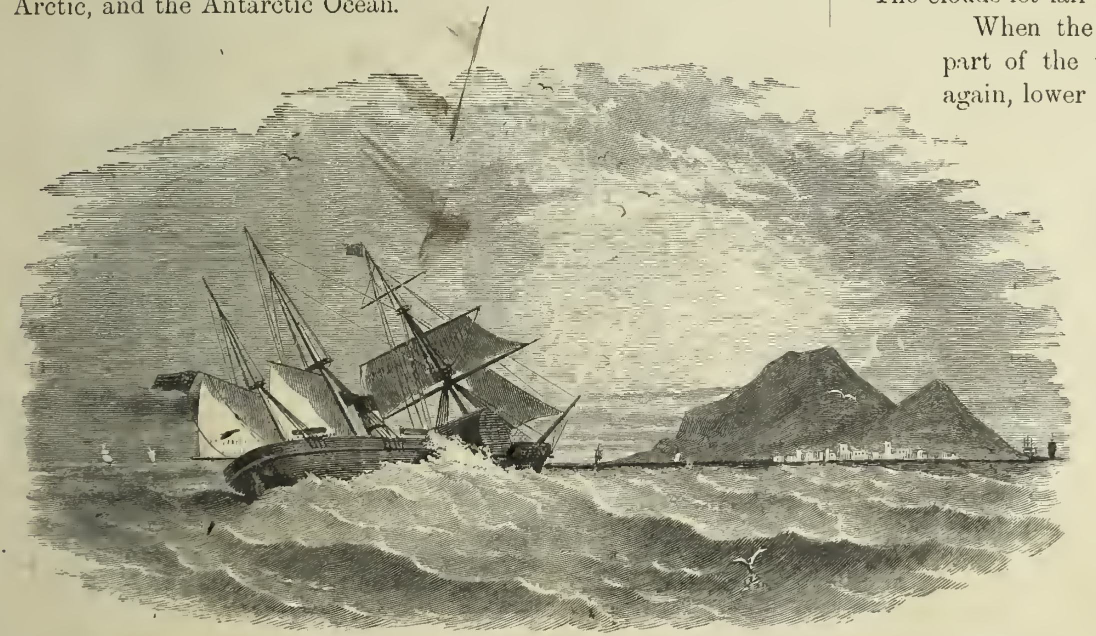
Are mountains usually found single?—What is a mountain chain?—A mountain system?—What is the difference between a mountain chain and a mountain system?—What is usually the surface of a country around the base of a mountain?—By what is a mountain chain bordered?—What is a volcano?—Where are volcanoes usually found?

What is a plateau?—Describe its surface.—How does a plateau differ from a plain?—What is a valley?—A desert?—Are all deserts perfectly barren?—What plants grow upon some deserts?—Are deserts ever inhabited by men or animals?

CHAPTER VII.

THE OCEAN.

THE OCEAN, OR SEA, is divided by the land into five principal parts. They are the Pacific, the Atlantic, the Indian, the Arctic, and the Antarctic Ocean.



THE OCEAN.

The smaller divisions or branches of the ocean are called seas, bays, gulfs, etc.

2. A Sea, Gulf, or Bay is a body of water which is partly surrounded by land.

3. A Harbor is a small bay, so sheltered from the open sea, that vessels can lie there in safety.

A harbor, in order to be good, must be nearly surrounded by land. It must have deep water and an easy entrance.

A low and sandy coast does not afford very good harbors; for the water is shallow, and the sand is drifted into banks called sand-bars.

These sand-bars lie at the mouth of the harbor, and rise to within a few feet of the surface of the water. If a vessel's keel sinks so deep as to strike against the bar, she cannot enter the harbor.

4. A Sound is an inlet of the sea, which is so shallow that its depth can be easily measured.

5. A Strait, or Channel, is a narrow passage of water which connects two larger bodies of water.

Questions.—What is the great body of salt water upon the surface of the earth called?—What divides the ocean into five parts?—Name these parts.—What are the smaller divisions called?—What is a sea, gulf, or bay?—A harbor?

What is necessary in order that a harbor should be good?—Why does not a low and sandy coast afford good harbors?—How does a sand-bar injure a harbor?—Why must a harbor be partly surrounded by land?—What is a sound?—What is the difference between a sound and other inlets of the ocean?—What is a strait or channel?

CHAPTER VIII.

INLAND WATERS.

LAKES AND RIVERS are inland waters; but the water which forms them comes chiefly from the sea.

The hot sun, shining upon the sea, is continually changing the water into vapor.

The vapor rises into the air, and is carried by the winds over the land.

When the vapor becomes cooler it takes the form of clouds.

The clouds let fall their moisture in the form of rain or snow.

When the rain or snow falls upon hills and mountains, part of the water sinks into the ground, and bubbles out again, lower down the mountain side, in a Spring.

The waters of a spring make a Brook.

Many brooks unite to form a Rivulet.

Many rivulets make a River.

RIVERS.

2. A River is a stream of fresh water which flows into the sea, or into some other body of water.

Most of the water in lakes and rivers, finally returns to the Sea. Part of it, however, rises into the air in the form of vapor.

Definitions.—The land which borders on a river forms its *Banks*. The bottom of a river is its *Bed*.

The *Source* of a river is the place where it rises. The *Mouth* is where it flows into some other body of water. The source of a river is always higher than its mouth.

You go Down a river in going towards the *mouth*, and Up in going towards its *source*. The *Left bank* is on your left hand, and the *Right bank* on your right hand, in going down the river.

3. Rivers generally rise among hills or mountains.

4. The Direction in which a river flows, depends upon the slope of the land.

If the land over which a river flows slopes toward the north, the river must flow north: if toward the south, the river flows south. You may know which way the land slopes by observing the direction of the rivers.

5. The Current of a river, is the onward flowing of its waters toward its mouth. Among hills and mountains, the rivers are narrow and very swift. When they flow over plains, they are broader and have a more gentle current.

Where the bed is rocky, and slopes considerably, the water rushes along with great violence. Such places are called *Rapids*. When a river falls over a precipice, it makes a *Waterfall* or *Cataract*.

6. The Mouth.—Most great rivers flow into the sea by several mouths. The land between the two outside streams is called a Delta.

A DELTA.

7. The Tributaries of a river are all those rivers and lakes which flow into it.

8. The Basin or Valley of a river is the country through which a river and its tributaries flow.

A line drawn around the source of a river, and of all its tributaries, will form the boundary of the river-basin.

9. A River System is a set of rivers which flow into the same body of water.

10. A Water-Shed is the high land which separates two rivers, or two river systems.

Sometimes a water-shed is a range of hills or mountains. Sometimes it is a gentle rise of land, so nearly level that it looks perfectly flat.
If the water-shed is very low, the two rivers, when they are full, often mingle their waters together.

11. Importance of Rivers.—A broad river flowing over a plain affords an easy means of travelling through a country. Vessels sail up and down its course.

Such a river is said to be *navigable* because you can sail upon or *navigate* its waters.

12. A narrow, swift stream, flowing among hills or mountains, is not navigable, but is of great use in manufacturing.

The water pouring over the falls turns the mill-wheels, and is therefore said to *afford water-power*.

13. Lakes and rivers, with all the streams flowing into them, help to keep the soil moist and fertile, and are of great importance in farming.

LAKES.

14. A river flowing into a hollow or basin forms a Lake. A Lake is a body of water surrounded by land.

15. Salt Lakes.—Lakes which have no outlet are generally salt. The water escapes into the air in a state of vapor. This changing of water into vapor is called *evaporation*.

16. Mountain Lakes are usually deeper and smaller than those found among the plains.

Questions.—What are inland waters?—Where does the water come from?—What changes the sea-water into vapor?—How is it carried over the land?—Into what is it changed?—In what form does the vapor fall from the clouds?—What becomes of the rain?—What is a spring?—A brook?—A rivulet?—How are rivers formed?

What is a river?—What becomes of the water?—What are the banks of a river? The bed?—The source?—The mouth?—Why must the source of a river be higher than its mouth?—What is meant by going up a river?—Down?—What is the right bank?—The left?—Where do rivers generally rise?

Upon what does the direction depend?—If the land slopes north, which way does the river flow?—If south?—If east?—If west?—What is the current of a river? Where do rivers flow more swiftly—over a plain, or down a mountain side?

What are rapids?—What is a waterfall?—A delta?—What are the tributaries of a river?—What is the basin, or valley?—How would you mark the boundaries of a river-basin?—What is a river-system?—A water-shed?—Is a water-shed always high land?—What happens when the water-shed is very low?

Of what use is a broad river flowing over a plain?—What is said of such a river?—What kind of a river is best for navigation?—Of what use are swift mountain streams?—How do such streams afford water-power?—How are lakes and rivers useful to farmers?—What is a lake?—What are salt lakes?—What becomes of the water?—Which are usually deeper—lakes among the mountains, or on plains?

CHAPTER IX.

CLIMATE.

THE Climate of a country is the usual state of the air in that country. It is hot or cold, moist or dry, healthy or unhealthy.

The hottest part of the earth is near the equator, for the sun is more directly overhead there, throughout the year, than in any other part of the world.

THE ZONES

The heat gradually lessens as we go from the Equator to the Poles, and we pass from very hot countries into mild and temperate lands, and at last into the icy regions around the Poles.

ZONES.

2. Torrid Zone.—The region near the Equator is called the Torrid or Hot Zone.

Zone means "*belt*." The Torrid Zone forms a broad belt all the way around the earth.

3. In the Torrid Zone the year is divided into two parts, the Wet and the Dry seasons. The heat is very great throughout the year; for these seasons are about equally warm. Snow and ice are unknown, except upon the tops of high mountains.

In the Dry season little or no rain falls, but the dews are so heavy that the plants are kept moist. In the Wet season it rains heavily a part of every day.

4. Tropical Circles.—The limits of the Torrid Zone are marked upon globes and maps by parallels of latitude called Tropical Circles. The one north of the Equator is the Tropic of Cancer. The one south of the Equator is the Tropic of Capricorn. These circles are about twenty-three and a half degrees of latitude from the Equator.

Countries lying between the tropical circles are called Tropical Countries; and they are said to have a *tropical climate.*

5. Frigid Zones.—The countries which lie near the Poles have a very cold climate. The ground is frozen and is covered with snow and ice nearly all the year. We call these regions Frigid, or Frozen Zones.

There are only two seasons in the Frigid Zones—winter and summer. The winter lasts nearly all the year, and is dreadfully cold, because the sun never rises very high, and during a great part of the year does not rise at all.

The summer lasts only a few weeks, but as the sun does not set for days and weeks together, the air becomes very warm, sometimes, indeed, excessively hot.

6. Polar Circles.—The limits of the Frigid Zones are marked on maps and globes by parallels of latitude called Polar Circles. The northern is called the Arctic, and the southern the Antarctic Circle.

The Arctic Circle is about twenty-three and a half degrees of latitude from the North Pole; and the Antarctic Circle is about twenty-three and a half degrees from the South Pole.

7. Temperate Zones. — The regions between the Torrid and the Frigid Zones are called the Temperate Zones. They lie between the Tropical and Polar Circles.

Only the middle part of the Temperate Zones has really a temperate climate. The part which lies near the Torrid Zone is very hot, and that which is near the Frigid Zones is very cold.

8. In going from one zone to another, you would not find much difference in the climate for a long distance. The change is very gradual.

The lines which mark the boundaries of the zones, are therefore not intended to mark a sudden change in the climate. They show three things:

1. Every place within the Tropical Circles has the sun directly overhead a part of the year; and the sun is never *directly* overhead except within the tropical circles.

2. Within the Polar Circles there is a part of the year when the sun is out of sight—that is, he does not rise every day in the year. This is the case only within the polar circles.

3. In the Temperate Zones the sun is never directly overhead, but never fails to rise every day.

9. The Temperature of a country depends chiefly upon its distance from the Equator. The Temperature of a country is the usual degree of heat in that country.

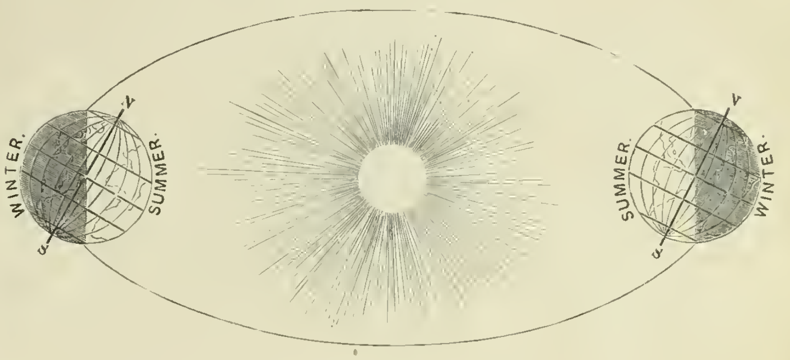
10. Height.—The temperature of a place also depends upon its elevation above the surrounding country. The higher we ascend, the colder the air becomes.

In a tropical country, if we ascend a mountain three or four miles high, we pass through as many changes of climate as we should in going from the Equator to the Poles. Even at the Equator the tops of high mountains are covered with perpetual snow.

11. Distance from the Sea.—Places far inland, beyond the reach of the moist sea-breezes, have colder winters and hotter summers than those near the coast. The climate is also drier in the interior than it is near the sea.

THE SEASONS.

12. The earth, in its path around the sun, leans over a little, so that in one part of the journey the northern half of the earth is turned more directly toward the sun, while the southern half is turned away from it. It is then Summer in the northern hemisphere, while it is Winter in the southern.



13. When the earth has reached the opposite part of its course, the southern half is turned toward the sun, while the northern half is turned away from it.

It is then Summer in the southern hemisphere, and Winter in the northern.

While it is Spring in the northern, it is Autumn in the southern hemisphere.

Questions.—What is meant by the climate of a country?—What is the hottest part of the earth's surface?—Why?—What change do we find as we go from the Equator toward the poles?—What is the torrid zone?—Meaning of "zone"?—Describe the climate of the torrid zone.—Where in the torrid zone would you find any cold weather?—Does it rain all day during the wet season?—What keeps the plants alive during the dry season?

What are the boundaries of the torrid zone?—Which is the northern circle?—The southern?—How many degrees of latitude are they from the Equator?—What is meant by "tropical countries"?—By a "tropical climate"?—What zone lies within the tropical circles?

Describe the frigid zones.—How many seasons are there?—Why is the winter so cold?—Why is the summer so warm?—Describe the polar circles.—How far are they from the poles?—Where are the temperate zones?—Describe the climate.—Between what two circles does the north temperate zone lie?—The south temperate?

Would you find any sudden change in going from one zone to another?—Are the boundaries of the zones intended to mark any distinct change in the climate?—What is said of the sun in the torrid zone?—In the frigid?—temperate?

Upon what does the temperature of a country chiefly depend?—What is meant by the "temperature" of a country?—What else affects the temperature of a place? Which is the colder—highland or lowland?—What change of climate is found in ascending a tropical mountain?—What difference of climate is there between the sea-coast and the interior?

When the northern half of the earth is toward the sun, which way is the southern half turned?—When is it summer in the northern hemisphere,—when the north pole is turned towards the sun, or away from it?—When it is winter in the southern hemisphere, which pole is turned toward the sun?—While the south pole is toward the sun, which way is the north pole turned?

What season is it in the northern hemisphere, when it is summer in the southern? What season comes in the southern hemisphere, when it is spring in the northern? When it is spring in the southern hemisphere, what season have we in the northern? When it is winter in the north temperate zone, what season is it in the south temperate?—When it is December in the north temperate zone, what month is it in the south temperate zone?

CHAPTER X.

VEGETATION.

THE various plants of the earth—the trees, grains, fruits, grasses and flowers—are called Vegetable Productions or Vegetation.

2. Both Heat and Moisture are necessary to the growth of plants; and the hotter and more moist a country is, the more rapidly do plants grow.

3. In the **Torrid Zone,** the heat and moisture are greater than anywhere else, and consequently plants grow larger and more rapidly than in the other parts of the earth.

There is a greater variety of useful plants in this zone than elsewhere. The trees grow to a great size, and are green throughout the year.

This is the region of the palm tree, the coffee tree, the sugar-cane and many tropical fruits, such as the orange, lemon and banana. Cotton, tobacco and indian-corn also grow in the Torrid Zone.

4. The heat gradually diminishes from the Equator toward the Poles, and consequently plants become gradually smaller and less abundant.

5. In the cooler parts of the **Temperate Zone,** there is a great variety of trees which cast their leaves in winter.

These are the oak, elm, beech, maple, chestnut and many others. The evergreens which belong to cool countries are the pine, fir, spruce, hemlock and cedar.

The white potato and the grape-vine belong to the Temperate Zone. Wheat and grass grow best there. Corn, cotton, rice and tobacco thrive both in the Temperate and the Torrid Zones.

6. In the **Frigid Zones** there are mosses, lichens, and dwarfed trees; and during the short summer, grass and beautiful flowers.

7. In going up a mountain, the same changes are found in the kind of plants as in going toward the Poles.

A very high mountain in the Tropics has all the variety of plants that we should find in going from the Equator to the Poles.

8. **Barren Countries.**—In most parts of the Frigid Zones, there is moisture enough, but not enough heat, for the growth of large trees and cultivated plants.

9. In the Torrid Zone there are countries which have not sufficient moisture to make plants grow. Consequently these places are barren, notwithstanding the great heat.

These deserts of sand, stone, or salt, would become covered with various plants and a fertile soil, if heavy and frequent rains occurred.

Questions.—What are vegetable productions?—Upon what does the growth of plants depend?—In what zone do plants grow the most rapidly?—Why?—Where do we find the greatest variety of useful plants?—What is said of the trees in the torrid zone?—Name the productions of the torrid zone.—Which of these furnish food?—clothing?

Why does vegetation diminish as we leave the Equator?—Name the trees which belong to cool countries.—Which of them cast their leaves in winter?—Which are evergreens?—Name the other principal plants of the temperate zone.—What plants grow both in the temperate and the torrid zones?—What plants of the temperate zone furnish food?

Why are the plants so small in the frigid zones?—What changes are found in going up a mountain?—Why does the vegetation change?

Why is the land barren in the frigid zones?—Why are some parts of the torrid zone barren?—What two things are necessary to making a country fertile?—What would change the deserts of the torrid zone into fertile tracts?

CHAPTER XI.

MAN.

THE Earth was made for Man. He is found in almost every country and climate.

2. Men can adapt their clothing to the hottest or the coldest countries. They can also receive nourishment from many different kinds of food. These are the reasons why they are able to live in all parts of the world.

In the Frigid Zones, where there is hardly any vegetable food, men subsist upon animals. In the Torrid Zone, they live chiefly upon vegetable food, which is very abundant. In the Temperate Zones, where both animal and vegetable food is abundant, men live upon both kinds.

3. The most civilized and intelligent nations live in the North Temperate Zone, where the climate is neither too hot nor too cold for agriculture, and every kind of labor.

Among the civilized nations of this zone, are the people of North America and Europe, and the Chinese and Japanese of Asia.

RACES OF MEN.

4. There are five different races of men.

The **Caucasian** or **White race,** is the most numerous and powerful. Most of the nations of Europe and America belong to this race.

The **Mongolian** or **Yellow race,** is found in Asia. The Chinese are Mongolians.

The **Ethiopian** or **Black race,** includes the negroes of Africa, Australia and America.

The **Malay** or **Brown race,** inhabits the Malay peninsula (in Asia), and most of the islands in the Pacific Ocean.

The **American** or **Red race,** includes the various Indian tribes of America. The Esquimaux, in the Arctic regions, are Mongolians.

Questions.—Why are men able to live in all climates?—What do men live upon in the frigid zone?—In the torrid zone?—In the temperate zones?—In what zone do the most civilized nations live?—How many different races of men are there?—What is said of the Caucasian?—Mongolian?—Ethiopian?—Malay?—American?

CHAPTER XII.

OCCUPATIONS.

THE principal things which our bodies require are Food, Clothing and Shelter.

2. In order to supply these wants, men have to pursue various employments.

Among them are:—

3. **Hunting and Fishing.**—These pursuits furnish us with a large part of our food; and savages live almost entirely by these means.

4. **Agriculture** is the cultivation of the soil. This is best carried on in a level or slightly hilly country. Where the soil is poor, or the surface much broken, the people generally follow some other occupation.

5. **Grazing** is the rearing of cattle, sheep and swine. These animals may find good pasturage in a country which is too hilly and rocky or too dry for agriculture. But grazing is carried on both on hills and fertile plains.

The products of this business are the live animals, and the articles obtained from them. The live animals are called *live-stock*. Horses, mules, cows, oxen, sheep, goats and swine are live-stock.

6. **Lumbering.**—Cutting down trees and shaping them into logs is called Lumbering. This business is chiefly carried on in thinly-settled districts, where the original forests remain. The logs are sawed into planks, boards, shingles, laths and other materials for building.

7. **Mining.**—Digging for coal, iron and other minerals is called Mining. Mines are most easily worked among hills or mountains; for the minerals lie nearer the surface than they do in plains.

8. **Manufacturing.**—Such materials as wool, cotton, iron, hides and silk are called *natural* productions, because they are in their natural state; but when they have been made into cloth, machinery, leather, etc., they are called *manufactured* productions, or manufactures.

Manufacturing is most easily carried on in hilly countries, where there are rapids and waterfalls.

The mill or factory is situated close to the water. The water, falling upon a great wheel, turns it around. The wheel moves the machinery inside the building, and the machinery manufactures the goods.

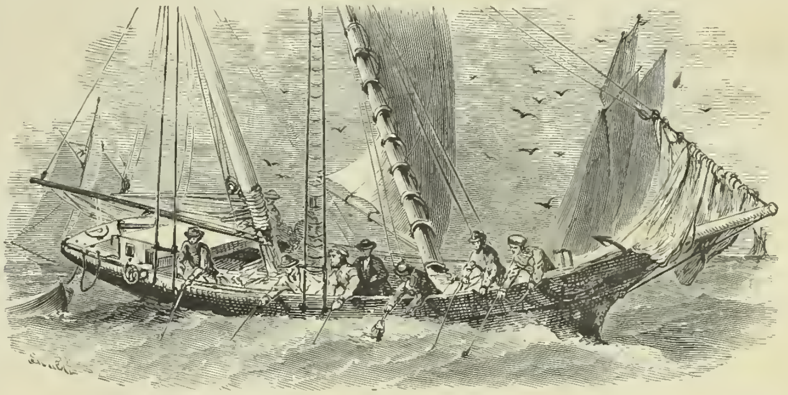
Where there is no water-power, manufacturing is done by steam.

9. **Commerce** is the exchange of one kind of goods for another. Farmers produce more grain, hay, etc., than they want. So they sell a part, and buy groceries, clothing, tools and other things which they do not themselves produce.

Manufacturers make woolen, iron or cotton goods; but they have to buy the cotton, the iron and the wool, of which their goods are made.

This business of buying and selling is called Trade or Commerce.

The farmers, the fishermen, the miners, take their goods to some neighboring town, where they sell them to the merchants, and buy other goods. As the country around this town becomes thickly settled, the trade between the town and country increases; and the town often becomes a great city.



10. **Commercial Towns.**—A town in which a great deal of commerce is carried on, is called a Commercial town. Most of the great commercial cities in the world, are situated upon the sea-coast, or upon a lake or navigable river in the interior.

Lakes, rivers and the sea are the natural roads for travel and commerce. It is cheaper to send goods by water than by land. But when there are no water-routes, railroads are often used instead.

The trade between different parts of the same country is called Domestic Commerce. The trade with a foreign country is Foreign Commerce.

The towns which trade with foreign countries are generally located upon the sea-coast, or upon some navigable river near the sea.

The goods which are brought into a country are called its **Imports**; those which are sent out are its **Exports.**

Questions.—What are the chief things our bodies require?—By what means do savages chiefly subsist?—Can you think of any animals which are hunted for food?—For clothing?—Are products of hunting and fishing, animal or vegetable substances?

What is agriculture?—For what is cotton used—for food, clothing, or shelter?—Hemp and flax?—Wheat?—Oats?—Barley?—Corn?—Rye?—The sugar-cane?—Coffee?—Are the products of agriculture, vegetable or animal substances?

What is grazing?—Is a hilly country best adapted to grazing, or to agriculture?—Are cattle ever raised on plains?—What are the products of grazing?—What does "live-stock" mean?—Name some of the animals which are called live-stock.—From what animal is beef obtained?—Mutton?—Pork?—Milk, butter and cheese?—Hides?—Horns?—Wool?—What are hides used for?—Wool?—What grazing products are used for food?—For clothing?—Are grazing products, animal or vegetable substances?

What is lumbering?—Where is it generally carried on?—Why is it not carried on in very thickly settled regions?—Name some of the articles obtained from lumbering.—Are these animal or vegetable substances?—Are they used for food or shelter?

What is mining?—Where is it most easily carried on?—What is coal used for?—Salt?—Gold?—Silver?—Iron?—Lead?—Tin?—Zinc?—Copper?—Diamonds?—Which of these are precious metals?

What are natural productions?—What are manufactured productions?—Is wool a natural or manufactured production?—Woolen cloth?—Hides?—Leather?—Boots and shoes?—Linen?—Where is manufacturing most easily carried on?—Describe a factory worked by water-power.—What other power is used in manufacturing?

What is commerce?—What do farmers sell?—What do they buy?—What do manufacturers sell?—What do they buy?—Where do the farmers, fishermen and miners take their goods?—Who buys them?

What is a commercial town?—Where are great commercial cities situated?—What are the natural roads for travel and commerce?—Which is the cheapest way of sending goods, by water or by land?—What substitute is there for water-routes?—What is domestic commerce?—Foreign commerce?—What are imports?—Exports?

PART II.

DESCRIPTION OF COUNTRIES.

CHAPTER I.

THE HEMISPHERES.

THE entire surface of the globe is usually represented by maps of the two hemispheres:—called the Eastern and the Western. The Eastern Hemisphere contains the most land: the Western contains the most water.

Most of the land on the surface of the earth is in the Northern Hemisphere. The Southern is chiefly water.

CONTINENTS.

2. **Continents.** There are two continents:—the Eastern and the Western. The Eastern Continent is called the Old World, and the Western Continent, America, or the New World. The Old World is twice as large as the New.

3. The **Western Continent** is almost divided by the ocean into two parts, called North America and South America. They are connected by the Isthmus of Panama.

4. The **Eastern Continent** is also nearly divided by the sea into a northern and a southern section, which are connected by the Isthmus of Suez. The southern section is called Africa. The northern part contains Europe and Asia.

A great island, called **Australia,** lies south of Asia. It is so large that it is sometimes called a continent.

GRAND DIVISIONS.

5. North America, South America, Europe, Asia, Africa and Australia are called Grand Divisions.

These six Grand Divisions, with the islands that lie near them, are the principal bodies of land on the globe. Besides these, there are Polynesia and the Antarctic Land.

6. **Polynesia**—which means "many islands"—includes the multitude of islands scattered over the Pacific Ocean.

7. The **Antarctic Land** comprises the various bodies of land lying within the Antarctic Ocean.

These regions are barren and desolate. The land is perpetually covered with ice and snow, and the coasts are for the most part bordered by vast masses of ice. There are no inhabitants, and but few land animals; and some tracts are wholly destitute of vegetation.

8. The **Outline** of the three northern Grand Divisions is broken by many seas, gulfs and bays, which reach far into the interior, and make it easy to travel to all parts of the country. The three southern bodies of land have few of these great inlets of the ocean. The bays and gulfs are *outside,* rather than *inside,* of them.

Partly on this account, and partly because they are so hot, South America, Africa and Australia have to this day remained but little settled, except upon the coast.

9. **Position** and **Climate.** North America, Europe and Asia lie chiefly in the Temperate Zone, and are therefore much cooler than South America, Africa and Australia, which are mostly in the Torrid Zone.

OCEANS.

10. The **Ocean** is divided into five parts:—the Pacific, the Atlantic, the Indian, the Arctic and the Antarctic Ocean. The Pacific is the largest, the Atlantic the next.

The **Pacific Ocean** is bounded by the western continent on the east; the Antarctic Land on the south; and on the west by Asia, Australia and the islands which lie between them.

The **Atlantic Ocean** lies between the eastern and the western continents. The Antarctic Ocean forms its southern boundary.

The **Indian Ocean** is bounded on the north by Asia; east by Australia and the neighboring islands; south by the Antarctic Ocean; and west by Africa.

The **Antarctic Ocean** lies around the South Pole.

The **Arctic Ocean** lies around the North Pole, and is nearly enclosed by the northern shores of the two continents.

Questions on the Map and Text.

What is a hemisphere?—Which hemisphere contains the most land—the eastern or the western?—The most water?—Which contains the most land—the northern or the southern hemisphere?—The most water?—What line marks the boundary of the northern and southern hemispheres?—Of the eastern and western?

What is a continent?—In which hemisphere is the Old World?—The New World?—Which continent is in the eastern hemisphere?—In the western?—What great island, sometimes called a continent, is in the eastern hemisphere?—Which continent is the largest—the eastern or the western?—Name the three northern Grand Divisions.—The three southern.—What three Grand Divisions form the Eastern continent?—What two the western?

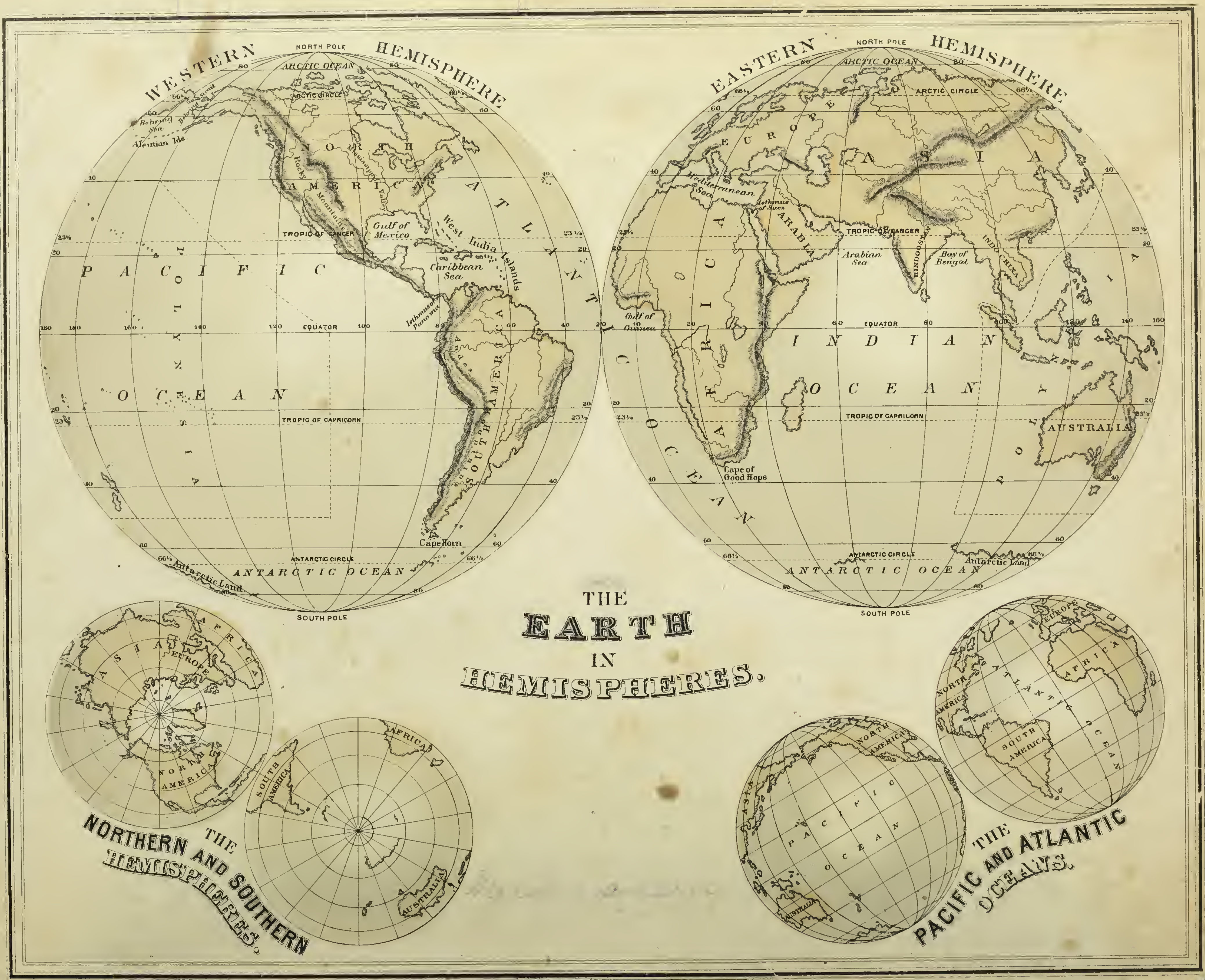
How are North and South America connected?—What ocean, sea and gulf lie between them?—What chain of islands partly connects them?—By what isthmus is Africa connected with Asia?—What sea separates Africa from Europe?—What bodies of land are there besides the six Grand Divisions?—In what ocean is Polynesia?—The Antarctic Land?—Describe the latter.

What three Grand Divisions have the greatest number of inlets of the ocean?—Where are the bays and gulfs of the three southern?—Which, then, are the most easily explored by travellers?—Why?—Which lie chiefly in the Temperate Zone?—In the Torrid?—Which, therefore, are the warmest?—Which comes nearest the Poles?

Name the five principal sections of the ocean.—Which is the largest?—The next?—Bound the Pacific Ocean.—The Atlantic.—The Indian.—The Antarctic.—The Arctic.—What land in the Antarctic Ocean?—What ocean forms the southern boundary of the Pacific, Atlantic, and Indian Oceans?

What cape at the southern extremity of Africa?—Of South America?—What strait separates Asia from North America?—What islands partly connect these Grand Divisions?—What sea is enclosed by these islands?—Sail south-east from Behring Strait to Arabia in Asia: through what oceans would you sail, and around what capes would you pass?—Through what zones?

In which hemisphere do you find the land approach nearest the Pole—the northern or the southern?—What three Grand Divisions form almost a circle around the Arctic Ocean?—What Grand Divisions are crossed by the Equator?—Is South America as much in the Torrid Zone as Africa?—What part of Asia is in the Torrid Zone?—Of North America?—Of South America?—Of Australia?—How do North and South America compare in size?—Asia and Europe?—Name and locate three peninsulas; two gulfs; two seas; a valley; two mountain-chains.


THE
EARTH
IN
HEMISPHERES.
WESTERN HEMISPHERE
EASTERN HEMISPHERE
NORTH POLE
SOUTH POLE
ARCTIC OCEAN
ARCTIC CIRCLE
TROPIC OF CANCER
EQUATOR
TROPIC OF CAPRICORN
ANTARCTIC CIRCLE
ANTARCTIC OCEAN
Antarctic Land
Behring Sea
Behring Strait
Aleutian Ids.
NORTH AMERICA
Rocky Mountains
Mississippi Valley
Gulf of Mexico
West India Islands
Caribbean Sea
Isthmus of Panama
SOUTH AMERICA
Andes
Cape Horn
PACIFIC OCEAN
POLYNESIA
ATLANTIC OCEAN
EUROPE
ASIA
AFRICA
Mediterranean Sea
Isthmus of Suez
ARABIA
Arabian Sea
HINDOOSTAN
Bay of Bengal
INDO CHINA
Gulf of Guinea
Cape of Good Hope
INDIAN OCEAN
AUSTRALIA
THE NORTHERN AND SOUTHERN HEMISPHERES.
THE PACIFIC AND ATLANTIC OCEANS.

CHAPTER II.

NORTH AMERICA.

[To the Teacher.—*Please read the Suggestions, page 3.*]

OUTLINE.—North America is penetrated by many large gulfs and bays. In this respect it differs from South America, which has a more unbroken coast-line.

These inlets of the ocean are of great advantage to commerce, for they enable vessels to sail far into the interior of the country.

2. Surface.—North America contains three mountain-systems: the Rocky Mountain, the Sierra Nevada (*se-er'-rah nay-vah'-dah*), or California Mountains, and the Appalachian systems.

1. The **Rocky Mountain System** extends from the Isthmus of Panama to the Arctic Ocean. The southern part of the system is called the Sierra Madre (*se-er'-rah mah'-dray*). "Sierra" is the Spanish word for "mountain chain."

2. The **Sierra Nevada System** extends along the Pacific coast from the southern part of the United States into Alaska. The northern part of this system is called the Cascade Range. A low range, called the Coast Mountains, is connected with the Sierra Nevada. It extends from Cape St. Lucas to Cape Flattery.

These two systems are the highest. They contain a great many rocky, snow-capped peaks, from 10,000 to 15,000 feet high, many of them volcanic. Mt. St. Elias is the highest mountain in North America. Its top is 18,000 feet above the sea.

3. The **Appalachian System** extends from the Gulf of St. Lawrence to within two hundred miles of the Gulf of Mexico.

This system consists of several parallel chains of low mountains, which are clothed with forests to their tops. They are 2000 or 3000 feet high.

3. The land which lies between the Sierra Nevada and Rocky Mountains, is a great plateau crossed by many mountain-chains. This plateau rises from a height of 1000 feet on the Arctic coast to 9000 feet in Mexico.

This great mass of table-land occupies nearly one third of North America. The highest portion is in Mexico and Central America; and it sinks gradually to the level of the Arctic coast.

4. The surface of North America is divided by the Rocky and Appalachian Mountains into three sections: the Atlantic Slope, Pacific Slope, and the Great Central Plain.

The Atlantic Slope extends from the Appalachian Mountains to the Atlantic Ocean.

The Pacific Slope extends from the Rocky Mountains to the Pacific Ocean.

The Great Central Plain lies between the Rocky and Appalachian Mountains, and extends from the Arctic Ocean to the Gulf of Mexico.

5. Lakes and Rivers.—The different slopes of land are drained by different systems of lakes and rivers, which flow in various directions according to the slope of the land.

The longest rivers of North America are in the Great Central Plain, because there is more room there than in other parts of the country.

The Mississippi River with its numerous branches, and the St. Lawrence with its five great lakes, are the most important rivers of North America, for they enable vessels to reach some of the richest and most populous parts of the country.

The Central Plain is divided into a northern and a southern slope. The Mississippi River and its tributaries flow down the southern slope. The St. Lawrence, and the rivers which flow into Hudson Bay and the Arctic Ocean, flow down the northern slope.

The Water-shed between the northern and the southern slope is formed by ranges of low hills, which contain the sources of the various rivers.

6. The Basin of the Mississippi is second in size only to that of the Amazon (in South America). It covers nearly the whole of the Central Plain of the United States.

This mighty river rises in a little brook which flows into Lake Itasca. It is 2800 miles long, and is the largest river in the world except the Amazon. If we reckon the length from the source of the Missouri, it is 4100 miles long.

7. The River St. Lawrence is the outlet of five great lakes, which form the largest collection of fresh water upon the globe.

The St. Lawrence River is partly in Canada. Lake Michigan is entirely within the United States; but the other four lakes belong partly to Canada, and partly to the United States.

Every one of these lakes is higher than the one into which it flows. The surface of Lake Erie is more than three hundred feet above the level of Lake Ontario. Part of the descent from Erie to Ontario is down the Falls of Niagara.

8. Climate.—The southern part of North America is in the Torrid Zone; the central part in the Temperate; and the extreme north in the Frigid Zone. But the greater part of the country is in the Temperate Zone.

9. Countries.—North America consists of the following countries: *Mexico, Central America,* the *West Indies,* the *United States, British America,* and *Danish America.*

Questions.—How does the coast of N. America differ from that of S. America? Of what use are the bays and gulfs? What three mountain-systems in North America? Which are the highest? Which have rocky summits? Forest-clad summits? Describe the great plateau. Into what sections is the surface of North America divided?

Upon what does the direction of the lakes and rivers depend? Which slope contains the longest rivers? Why? What separates the rivers of the northern from those of the southern slope? What is the largest river-basin in the world? The next largest? Through what lakes and rivers does the water of Lake Superior flow into the ocean? Which is higher—the surface of Lake Superior, or the surface of the Gulf of St. Lawrence?

On which side of the Equator does North America lie? Does the climate, then, grow warmer or colder as you go north? In what zones is North America situated? In which zone is the greatest extent included? Are the climate and productions of North America, then, generally those of the Torrid, or the Temperate Zone? In what part of the country would you expect to find tropical productions? In advancing toward the north, would you find the vegetation more, or less luxuriant? In what regions would you expect to find only mosses and shrubs?

MEXICO AND CENTRAL AMERICA.

10. Surface.—The greater part of Mexico and Central America, is occupied by the plateau of North America, which is, in these countries, from 4000 to 9000 feet high. East of the plateau there is a low, flat plain extending to the coast.

Upon the surface of the table-land in Mexico and Central America, are many very lofty volcanoes. The highest is the famous Popocatepetl (*po-po-kat-a-petl*), or Smoking Mountain.

11. Climate.—The highlands have a mild and temperate climate. The lowlands are very hot and moist, and are therefore unhealthy.

12. Productions.—The lowlands produce the vegetation of the Torrid Zone. Upon the highlands are found many of the plants which belong to the Temperate Zone.

1. **Vegetable Productions.**—In the hot, moist lowlands the vegetation is very luxuriant, and the trees are green all the year round.

There are great forests of palm trees, mahogany, ebony, rosewood and other beautiful kinds of wood. Ferns grow in these forests to the size of large trees.

The bread-fruit tree bears a fruit about as large as a child's head. Three of these trees will furnish a man with food for a year. The yam is like a potato. Tapioca is made from the pith of a tree. Rice and maize (or Indian corn) are the principal kinds of grain.

The sugar-cane furnishes sugar, molasses and rum. Coffee is the berry of the coffee tree. Cocoa is made from the seed in the berry of the cocoa tree.

The following are called tropical fruits:—the pine-apple; the cocoa-nut (which is the fruit of a forest tree called the cocoa-nut palm), the orange, the lemon, the plantain and the banana.

Tobacco and dye-stuffs are among the principal productions. The dye-stuffs are logwood (from the forests) and indigo. Cotton is also raised in considerable quantities

All the foregoing plants grow upon the lowlands, and are tropical productions.

On the highlands are found the oak and pine, wheat and barley. Indian corn, cotton, and tobacco are found both upon the highlands and lowlands, for these are plants which grow both in a temperate and a hot climate.

2. **Animal Productions.**—Herds of cattle graze upon the plains and plateaus, and furnish hides, hair, horns, and tallow. The cochineal insect, when killed and dried in the sun, yields a brilliant crimson dye.

3. The **Minerals** are found chiefly in Mexico, and consist of gold, silver, iron and copper. The mines were once of great value, but are now little worked.

13. Animals.—The dense forests shelter great numbers of wild animals, and the hot marshy lowlands are infested with reptiles and troublesome insects.

The tapir is a harmless animal somewhat smaller than a donkey. The jaguar is a kind of tiger. The puma, or cougar, is the same as the panther of the United States. He is sometimes called the American Lion.

The woods abound with monkeys, and with birds of brilliant plumage. But the birds of tropical countries do not sing so sweetly as those of the temperate zone.

14. Inhabitants.—The population is composed of whites, Indians, negroes, and a mixture of these races. They are Roman Catholics.

The whites are the smallest part of the population. They are descendants of the Spanish, who took possession of these countries not long after Columbus discovered America.

15. Government.—Mexico and Central America are called Republics. Mexico is one country, but Central America includes five separate republics.

The people of a Republic choose their own rulers. The chief ruler of a Republic is commonly called President. Our own country is a Republic.

The people of Mexico and Central America are too lazy, ignorant and immoral, to govern themselves well. They are continually fighting among themselves, and are plundered by bands of robbers who roam about the country. Life and property are, therefore, insecure, and every branch of industry is very much neglected.

16. Commerce.—The exports are the natural productions. The imports are manufactures from Europe and the United States.

17. The coast is so unhealthy that all the large towns are built upon the table-lands. The seaport towns are small places. Mexico is the largest city in Mexico, and Guatemala (*gwaw-ta-mah'-lah*) is the largest in Central America. Mexico is at the height of 7000 feet above the sea.

18. Balize (*ba-leez'*) belongs to Great Britain, a country in Europe.

19. The Isthmus of Panama belongs to an adjoining state in South America. A railroad has been built across the narrowest part, where the surface is low.

Questions.—Describe the surface. Why are the lowlands unhealthy? Where do the tropical plants grow? Those of the Temperate Zone? What trees grow on the lowlands? On the highlands? Name all food-plants growing on the lowlands. Name other lowland plants. What food-plants grow on the highlands? What plants grow on both lowland and highland?

How is cochineal dye obtained? Where do the wild animals live? The reptiles and insects? Of what is the population composed? Where did the first white settlers come from? What is the government of these countries? Why are life and property insecure? Why are the seaport towns small places? Is the railroad across the Isthmus of Panama built on highland or lowland?

A SCENE IN THE TORRID ZONE.

WEST INDIES.

20. The West India Islands form three divisions—the Greater Antilles, the Lesser Antilles and the Bahamas.

The Greater Antilles are Cuba, Hayti, Jamaica and Porto Rico. The Lesser Antilles include the chain of islands which extends from Porto Rico to South America. They are volcanic islands

The chain of the Antilles is crossed by a range of mountains. The Bahamas are coral islands, and are low and sandy.

21. The **Climate and Vegetation** are similar to those of Mexico and Central America.

The climate is generally healthy, except in the rainy season. These islands are right in the centre of the region where the most dreadful hurricanes in the world occur. These storms often destroy ships, villages, people and the growing crops.

22. Animals.—The marshes and lowlands are infested with the same kinds of insects and reptiles which are found in Mexico and Central America; but the forests contain none of the fierce wild beasts which are found in other tropical countries.

23. Inhabitants.—The population of the West Indies consists of whites, free negroes and slaves. They are Roman Catholics.

About one-sixth of the inhabitants are white. The negroes were formerly slaves, but they are now free, except in Cuba and Porto Rico.

24. The **Commerce** is very extensive. The exports are the vegetable productions. The imports are manufactured goods and the productions of cooler countries.

The principal articles of export are sugar, molasses, rum, coffee, cocoa, tobacco, mahogany, spices and tropical fruits.

25. Government.—Most of the West India Islands belong to different nations in Europe.

26. Cuba and Porto Rico belong to Spain. Cuba, the "Queen of the Antilles," is nearly as large as all the rest of the islands together. It has a great commerce, and exports about one-third of all the sugar used in the world.

Havana is the chief city of Cuba, and is the largest town in the West Indies. Its foreign commerce is very large.

27. Jamaica, the Bahamas and most of the Lesser Antilles belong to Great Britain.

28. Hayti is independent. It consists of two separate countries—the Republic of San Domingo and the Republic of Hayti. The inhabitants are negroes.

They were formerly slaves, but they rose against their masters, and after a fierce and bloody war, drove them from the island.

29. The **Bermuda Islands** are situated in the Atlantic Ocean, north of the West Indies. They belong to Great Britain.

Questions.—Name the three divisions. The climate and vegetation are like those of what other countries? Why? Is the puma found in these islands? Are there any Indians? Which has the most extensive commerce—Mexico or the West Indies? What articles of food are exported? What other articles? What island is not owned by any foreign nation? Are the Bermudas a part of the West Indies?

THE UNITED STATES.

30. The **Surface** is divided into two regions of highland, and two of lowland. The highlands are the Great Western Plateau of North America, and the Appalachian Mountains, with the hilly country which lies at their base. The lowlands are the Great Central Plain and the Atlantic Plain.

The Great Central Plain is the southern half of the Central Plain of North America. It has a very even surface, and contains no greater elevations than the tract of highland called the Ozark Mountains, and the hills which separate the northern from the southern slope.

The Atlantic Plain is a flat district extending from the Atlantic coast to the hilly country at the base of the Appalachian Mountains.

31. Climate and Vegetation.—The United States is situated in the southern half of the North Temperate Zone. The climate is not so hot as that of the West Indies, nor so cold as that of British America.

32. In going from the Gulf of Mexico to British America, you pass gradually from a warm to a cool [illegible]. The southern part is warm; the middle section is mild; and the northern is cool.

Around the shores of the Gulf of Mexico the orange, the fig and the sugar-cane are raised. Rice grows abundantly on the marshy southern coast.

Draw a line westward from Cape Hatteras, and you will find south of that line the greatest cotton district in the world.

The principal tobacco region extends east and west through the middle of the country, but tobacco is raised in almost all the States east of the Rocky Mountains.

The white potato grows best in the northern half, and the sweet potato in the southern half, of the country.

Grass grows best in the northern sections; and hay is one of the most valuable products of the United States.

Indian corn is the principal grain raised in this country. It grows in almost all the States. The other most important grains are wheat and oats. The northern half of the United States is the principal grain region.

Forests.—The western half of the country is, in general, but scantily supplied with trees, except on the mountain sides and along the river banks. The eastern half is heavily wooded with forests of oak, maple, pine, fir, and other trees which belong to the Temperate Zone. Near the Gulf of Mexico the trees are mostly evergreen.

[NOTE.—*A full description of the United States is given on pages 22 to 44.*]

Questions.—Into what four sections is the surface of the United States divided? What parts of the country are high land? Low land? Why is the climate cooler than that of the West Indies? Where is the coldest part of the United States? Where are oranges raised? Figs? Sugar-cane? Rice? Cotton? Tobacco? White Potato? Sweet Potato? Grass? What is the principal grain? The other kinds? What plants of the United States grow also in Mexico and the West Indies? Which half of the United States raises the most grain? The most cotton? Where are the forests? Name all the kinds of trees growing in your own neighborhood.

BRITISH AMERICA.

33. British America occupies all the northern part of North America, excepting Greenland and Alaska. It belongs to Great Britain.

34. Surface.—Most of the country east of the Rocky Mountains is a part of the Great Central Plain, and is generally level.

East and south-east of Hudson Bay the land is hilly, being broken by parallel ranges of hills or low mountains. The Green Mountains (a part of the Appalachian System) are the most eastern range.

35. Climate and Vegetation.—The southern districts are like the neighboring parts of the United States in climate and vegetation. But the northern portions are intensely cold, and must forever remain uncultivated and unsettled.

Great forests of pine and fir cover nearly the whole country. Toward the far north, however, the trees dwindle to the height of only a few inches, and finally give place to mosses, berries and lichens.

36. Animals.—The trees and low plants support immense numbers of animals, whose thick fur enables them to bear the severe cold.

The buffalo, the moose (or elk), the reindeer, deer, the bear and the wolf are the largest of the land animals. Among the smaller fur-bearing animals are the fox, the sable, the beaver, otter and marten.

The northern coasts and islands abound with myriads of sea-fowl; and the whale, the seal and walrus, which inhabit these icy waters, furnish the inhabitants of the coast with almost all the necessaries of life.

37. The **Inhabitants** of the settled districts are descended from the English, Scotch and Irish, and in the Province of Quebec from the French. The French and Irish are Roman Catholics; the others are Protestants.

38. The wilderness lying north of the settlements is thinly peopled by Indians and hunters, engaged in taking the fur-bearing animals. Upon the northern coasts are a few Esquimaux.

The Esquimaux are savages, of a dark complexion, low stature and filthy habits. They live in huts made of ice, dress in furs, eat the fat (or blubber) of the whale and drink the oil of the seal. They travel over the ice and snow in sleds drawn by teams of dogs, and hunt the walrus in canoes framed with the bones of the whale.

39. Productions.—Lumber, grain, hay and potatoes, fish caught on the eastern shores, and furs from the northern wilderness, are the chief productions.

Besides these, coal and gypsum (or plaster of Paris) are mined in New Brunswick and Nova Scotia, and gold in British Columbia. Great numbers of grindstones are exported from Nova Scotia to all parts of the United States.

40. British America consists of eight states or provinces, and the extensive region called the North-west Territory.

41. These provinces were formerly independent of each other, but all of them, except Newfoundland, are now united under one government, called the Dominion of Canada.

A SCENE IN THE FRIGID ZONE.

42. Newfoundland is cold, wet and barren, and is covered with fogs nearly all the time.

The "Banks of Newfoundland" are shallow places in the sea, hundreds of miles in extent, and shrouded in mist nearly all the year. They are famous for their inexhaustible supply of cod and mackerel.

All the settlements are on the coast, and fishing is the only business. St. Johns is quite a large town, but is the only one of any importance.

43. The **DOMINION OF CANADA** includes the North-west Territory and the provinces of Nova Scotia, New Brunswick, Prince Edward Island, Quebec, Ontario, Manitoba, and British Columbia. The British Government appoints a governor for the Dominion, who resides at Ottawa, the capital. He is also governor-general of all British America.

1. **Nova Scotia** and **Cape Breton Island** form one province. Halifax is the chief city and capital. Pictou is famous for its coal-mines.

2. **New Brunswick** has many natural advantages for fishing and lumbering, which are the principal pursuits of the people. The Bay of Fundy is remarkable for having the highest tides in the world. St. John, the largest town, has a good harbor and considerable commerce.

3. **Prince Edward Island** has a milder climate than the neighboring mainland, and is free from the fogs so common in Nova Scotia and Cape Breton.
The forests, the pastures, the farms, and the fisheries, are all valuable.

4. **Quebec** was formerly called Canada East. Three-fourths of the people are descendants of the French, who first settled the valley of the St. Lawrence. The principal cities are Quebec and Montreal. Quebec is the capital. Montreal is the largest city in British America.

5. **Ontario** was formerly called Canada West. The principal cities are on the lakes and on the river St. Lawrence. Toronto is the capital and largest town.

6. **Manitoba** lies in the Red River Valley. Winnipeg is the capital.

7. **British Columbia** is crossed by forest-clad mountains, but also contains large tracts adapted to grazing and tillage. The climate of the coast is moist and mild. Victoria is the capital and principal town.

8. The **North-west Territory** comprises all of British America not included in the eight provinces.

Questions.—What part of British America is mountainous? Hilly? Level? What part is a plateau? What part is warm enough to be cultivated? Why is not the whole cultivated? Why does most of this country have a cold climate? Name all the provinces. What provinces are included in the Dominion of Canada? Name the principal cultivated plants in the provinces. In what province do the people live by fishing, and not by agriculture? Where are the fisheries carried on?

Most of the people in the province of Quebec speak French:—why is that? Where are the principal cities of Ontario? Why? What country owns British America? What part of British America contains only low plants—the northern or the southern? How do the inhabitants of the North-west Territory live—by agriculture, or by hunting and fishing?

Name the largest land-animals. The largest sea-animals. The smaller fur-bearing animals. Upon what do these animals live? Could they live in the Torrid Zone? Do the Esquimaux live upon vegetable or animal food? Why?

DANISH AMERICA.

44. Greenland and Iceland belong to Denmark (in Europe), and are called Danish America.

45. Greenland.—The interior has never been explored, but the coast is high and rocky, and the more elevated portions are covered with perpetual ice and snow.

The sun is above the horizon during the whole of the short summer, and gives sufficient warmth to ripen a small quantity of corn and garden vegetables; and even the extreme north is not entirely without life in the summer. A few years ago, a German exploring expedition landed on the east coast, in latitude seventy-seven degrees. To their great astonishment they saw herds of reindeer and musk ox feeding upon green meadows decked with flowers; while butterflies and honey-bees were flying over these grassy plains.

Most of the inhabitants of Greenland are Esquimaux, who have been converted to Christianity by Moravian missionaries. These missionaries have established a few settlements on the coast of Greenland and the opposite coast of Labrador.

Lichtenfels is the residence of the Danish Governor.

46. Iceland.—The coast is bordered by high and rugged mountains. The interior is a dreary desert of volcanoes, ice-clad mountains, and fields of lava.

The most famous of these volcanoes is Mt. Hecla. There are also boiling springs, called Geysers (*ghi'-zers*), which throw up water, steam and even large stones, to a great height.

Reikiavik (*ri'-ke-ah-vik*) is the principal town. The island was settled about a thousand years ago by people from the north of Europe. The Icelanders are Christians, and are remarkably intelligent and well-educated.

Questions.—How do you suppose the people of Danish America subsist—by agriculture or by hunting and fishing? Why? Who are the inhabitants of Greenland? Of Iceland? When was Iceland settled?

QUESTIONS ON THE MAP OF NORTH AMERICA.

Outline.—By what oceans is North America surrounded? By what isthmus is it connected with South America? Name all the bays on the coast. The gulfs. Seas. Straits. Peninsulas. Capes. Islands. Name all the bodies of water, in their order, from Behring Strait to the Strait of Belleisle. From the Strait of Belleisle to the Isthmus of Panama. From the Isthmus of Panama to Behring Strait. Name all the peninsulas and capes from Cape Prince of Wales to Point Moriato. From Cape Sable, in Florida, to Cape Race.

Surface.—In what direction does the Appalachian System extend? The Sierra Nevada and Cascade Range? The Rocky Mountain System extends from the Isthmus of Panama to the Arctic Ocean:—in what direction? In what country is Mt. St. Elias? Popocatapetl? Mt. Brown? Mt. Fairweather? Mt. Hood? Mt. Shasta? Fremonts Peak? Longs Peak? Pikes Peak?

Lakes and Rivers.—The lakes and rivers are divided by the slopes of land into six different systems:—

Arctic System.—Describe the Mackenzie River. Why does it flow north? What lakes are connected with it? What river flows into Lake Athabasca?

Hudson Bay System.—Name the rivers flowing into Hudson Bay. Of what lake is Nelson River the outlet? What large river flows into the north-western part of this lake? What river and lake flow into this lake from the United States?

St. Lawrence System.—What river flows north-east into the Gulf of St. Lawrence? Name the five great lakes whose waters flow into this river. Name its largest tributary or branch.

Gulf of Mexico System.—In what direction do these rivers flow? Why? Which is the longest? Which of these rivers forms part of the boundary between Mexico and the United States?

Atlantic System.—In what general direction do these rivers flow? Why? Into what ocean? In what mountains do they rise?

Pacific System.—Describe the Yukon River. The Columbia. The Colorado. In what mountain-system do these three rivers rise? Why do they flow west? What water-shed is between them and the rivers of the Great Central Plain?

Countries and Towns.—*Mexico and Central America.*—Bound Mexico. Central America. In what zone is Central America? In what zones is Mexico? Where is the city of Mexico? New Guatemala? Vera Cruz? Acapulco?

West Indies.—What waters surround the West India Islands? In what zone are most of them? Name the four most important islands. Name the three divisions of the West Indies. Which group is partly in the Temperate Zone? Which group extends from Porto Rico to South America?

Where is Havana? Matanzas? Kingston? Spanish Town? Port-au-Prince? San Domingo? Porto Rico?

United States.—Bound the United States. In what zone is it? What territory in the north-western part of North America belongs to the United States? Where is Sitka?

British America.—In what zone does most of it lie? In what zone is the northern part? What mountains cross the western part? Bound British Columbia. What two islands on the coast? What province south of Lake Winnipeg? North of the great lakes? What river separates it from Quebec?

What mountains separate the rivers which flow into Hudson Bay from those which flow into the St. Lawrence? Bound New Brunswick. What peninsula is connected with it? What bay partly separates Nova Scotia from New Brunswick? What island north of Nova Scotia? North-east? Bound Newfoundland. What territory in the northern part of North America? Where is Jan Mayen Island?

Where is Montreal? Quebec? Ottawa? Toronto? St. John? Halifax? Pictou? St. Johns? Winnipeg? Victoria? Nain? Hopedale? New Westminster?

Danish America.—In what zone is the larger part of Greenland? Iceland? Where is Lichtenfels? Upernavik? Reikiavik?

Questions on the Map and Text.

What kind of surface would you find in travelling from the Gulf of Mexico to the Arctic Ocean? What mountains would you cross, in going from the Atlantic to the Pacific Ocean, on the fortieth parallel of latitude? Why is not the Mackenzie River so valuable as the Mississippi? Let each pupil describe the situation of some town in North America, until all are named which are given on the map. Let each pupil name some vegetable product of North America, and tell in which countries it is found. Name the most important animals, and state where they are found.

NORTH AMERICA.
Scale 375 Statute Miles to an Inch.
100 200 300 400 500 600 700 800 900 1000
Hayes Farthest North Lat. 82°45'
Kane's " " " 82°30'
Hall's " " " 82°16'
Longitude West from Greenwich
Longitude West 100 from Greenwich
ARCTIC OCEAN
ASIA
BEHRING SEA
Behring Strait
Pt. Barrow
ALASKA
TO UNITED STATES
ARCTIC CIRCLE
Aleutian Islands
Kodiak I.
Mt. St. Elias
GREENLAND
DANISH AMERICA
BAFFIN BAY
DAVIS STRAIT
ICELAND
Jan Mayen I.
BRITISH NORTH AMERICA
DOMINION OF CANADA
TERRITORY
Victoria Land
PRINCE WILLIAM LAND
Great Bear Lake
Great Slave L.
Athabasca L.
Southampton Island
Hudson Strait
Cape Chudley
HUDSON BAY
James Bay
LABRADOR
Nain
Hopedale
Winnipeg Lake
WINNIPEG
MANITOBA
BRITISH COLUMBIA
ROCKY MTS
Vancouver Island
Victoria
C. Flattery
Queen Charlotte I.
QUEBEC
Montreal
ONTARIO
OTTAWA
TORONTO
NEW FOUNDLAND
ST. JOHNS
C. Race
Cape Breton Island
Prince Edward Island
NEW BRUNSWICK
NOVA SCOTIA
HALIFAX
C. Sable
UNITED STATES
Mt. Hood
Mt. Shasta
C. Mendocino
San Francisco Bay
San Francisco
SIERRA NEVADA
Fremonts Peak
Longs Peak
Pikes Peak
Missouri R.
Mississippi River
Ohio R.
Arkansas R.
Red R.
APPALACHIAN
WASHINGTON
Boston
C. Cod
New York
Delaware Bay
Chesapeake Bay
C. Hatteras
Bermuda Is.
Santa Barbara Islands
PACIFIC OCEAN
ATLANTIC OCEAN
TROPIC OF CANCER
Peninsula of California
GULF OF CALIFORNIA
C. San Lucas
MEXICO
SIERRA MADRE
Rio Grande
Tampico
MEXICO
Vol. Popocatapetl
Vera Cruz
Acapulco
BAY OF CAMPECHE
YUCATAN
BAY OF HONDURAS
GULF OF MEXICO
FLORIDA
Florida Strait
BAHAMA ISLANDS
WEST INDIA ISLANDS
CUBA
HAVANA
HAYTI
Port au Prince
San Domingo
Porto Rico
JAMAICA
Kingston
GREATER ANTILLES
LESSER ANTILLES
CARIBBEAN SEA
CENTRAL AMERICA
Guatemala
Isthmus of Panama
Aspinwall
Panama
Bay of Panama
Point Mariato
SOUTH AMERICA
EQUATOR
OHIO 40,000 SQ. M.

CHAPTER III.

THE UNITED STATES.

THE United States consists of thirty-eight States, ten Territories and the District of Columbia.

2. These States and Territories are divided into five sections: *New England*, the *Middle Atlantic States*, the *Southern States*, the *Central States* and the *Pacific States and Territories*.

The Central States were formerly called Western States, for when they were first settled they were the most western part of our country inhabited by white men, and they are still often called the Western States, or "The West."

3. The District of Columbia is a small tract of land on the left bank of the Potomac River, and contains Washington, the capital of the United States.

In this city the President and chief officers of the Government reside. Here, too, the men assemble who are chosen by the people to make their laws. This body of men is called the Congress of the United States.

4. This great Republic is nearly as large as the whole of Europe, and contains about 40,000,000 inhabitants. Most of them are descended from the English, Irish, Germans and other European nations. About 5,000,000 are of African descent.

Besides these there are about 300,000 Indians, most of whom are savages, living in the western half of the country.

5. The people of the United States are generally Protestants, but there are a great many Roman Catholics. All religious denominations have equal privileges.

QUESTIONS ON THE MAP OF THE UNITED STATES.

Position.—Bound the United States. What section borders on New England? What three sections border on the Middle Atlantic States? What three upon the Central States? What three border upon the Southern States? What two border upon the Pacific States and Territories?

Name all the states which border upon the Atlantic Ocean, from north to south. On the Gulf of Mexico. On the Pacific Ocean. On the Great Lakes and the River St. Lawrence. On the west bank of the Mississippi. On the east bank. On the north bank of the Ohio River. On the south bank.

Names of Territories.

Dakota.	Wyoming.	New Mexico.
Montana.	Utah.	Arizona.
Idaho.	Indian.	Alaska.
Washington.		

Outline.—Where is Cape Cod? Hatteras? Sable? Mendocino? Flattery?

What strait between the Bahama Islands and Florida? Where are the Florida Keys? Santa Barbara Islands? Where is San Francisco Bay?

Surface.—[Note.—*The following questions require a reference to the map, and to the diagram below the map: also a thorough knowledge of the surface of North America and the United States, given on page 16.*]

In what direction could you cross the United States without encountering any mountains? Travel from east to west, from the Atlantic Ocean to the Pacific, along the thirty-eighth degree of north latitude—is the land high, or low, near the Atlantic coast? To what plain does this level coast-region belong?

After leaving this coast-region, what kind of surface do you find? West of the hilly region, would you ascend, or descend?

What mountain-system would you cross? What is the eastern range of this system called? The western?

On the western base of these mountains is the country high land, or low land? Do you ascend, or descend, in going to the Mississippi River? Passing westward from this river, what is the first high land you come to? After crossing these high lands, do you find a level, or a broken surface?

From the foot of the Ozark Mountains to the base of the Rocky Mountains, does the land rise or fall? Does it rise abruptly, or gradually? What is the next range of mountains you would meet west of the Ozark Mountains?

After crossing the Rocky Mountains, do you find yourself on a plain, or a plateau? What river would you cross in going from the Rocky to the Wahsatch Mountains?

What name is given to that part of the great plateau lying between these two mountain-chains? From what river does it derive its name?

On descending the western side of the Wahsatch Mountains, what other portion of the Great Plateau do you reach? Is it higher, or lower, than the Colorado Plateau?—In what direction do the mountain-ranges cross the Interior Basin?

What great mountain-chain do you next ascend? On reaching the western base of the Sierra Nevada, are you higher, or lower, than when you were on the eastern base? Than when you were on the eastern base of the Rocky Mountains?

Is the land as low as that of the Atlantic Plain? After crossing this low district, what range of low mountains do you find skirting the Pacific coast?

In following the one hundredth meridian of longitude, from British America to the Rio Grande, are you upon high land, or low land? Do you cross any mountains or high hills? In following the ninetieth meridian, are you upon a plain, or plateau?

Lakes and Rivers.—The lakes and rivers belong to five of the six river-systems of North America. The Arctic System does not belong to the United States.

Atlantic System.—Name the rivers of the Atlantic System in New England. In the Middle Atlantic States. Southern States.

Gulf of Mexico System.—Name these rivers in their order from east to west. Name the tributaries of the Mississippi, from its mouth to its source. In what mountains do the eastern branches rise? The western branches?

Hudson Bay System.—In what direction does the Red River of the North flow, and into what lake? Where is Lake of the Woods?

Pacific System.—What river flows into the Gulf of California? Between what state and territory does the Columbia River flow?

Towns.—Describe the situation of the following twelve principal cities of the United States. The population is given according to the census of 1870:

New York	950,000	Boston	250,000
Philadelphia	675,000	Cincinnati	220,000
Brooklyn	400,000	New Orleans	190,000
St. Louis	310,000	San Francisco	150,000
Chicago	300,000	Buffalo	120,000
Baltimore	270,000	Washington	110,000

Which of these twelve cities lies farthest south? Which four are nearly east of San Francisco? Which two are nearly west of Boston? In what direction is New York from Chicago?

Which five are on, or near, the Atlantic coast? In what direction is Philadelphia from Baltimore? New York from Baltimore? Boston from Baltimore?

Which one of the twelve cities lies in the hottest section of the United States? Which are situated in the northern half? Which three are farthest north?

Load a vessel with lumber at Chicago—through what waters would she pass in going to Europe?

UNITED STATES
Scale 285 Statute Miles to an Inch.
50 100 200 300 400 500
New England States
Central States
Southern States
Middle Atlantic States
Pacific States & Ter
Longitude West from Greenwich
TROPIC OF CANCER
Pacific Ocean. Pacific Slope. Sierra Nevada Mts. Great Interior Basin Wahsatch Mts. Colorado Plateau. Rocky Mts.
Great Central Plain or Mississippi Basin
Appalachian System of Mts. Atlantic Slope. Atlantic Ocean
San Francisco Bay
Coast Mts.
Castle Peak.
Colorado R. (Cañon)
Arkansas Valley
Ozark Mts.
Mississippi R.
Ohio Valley
Alleghany Mts.
Blue Ridge
Hills
Coast-region
Chesapeake Bay
Vertical Scale in Feet
Section across the United States on the 38th. Parallel of North Latitude.
Linear Scale same as the Map 285 Miles to an Inch.
DOMINION OF CANADA
PACIFIC OCEAN
ATLANTIC OCEAN
GULF OF MEXICO
MEXICO
WASHINGTON TERRITORY
IDAHO TERRITORY
MONTANA TERRITORY
DAKOTA TERRITORY
OREGON
WYOMING TERRITORY
NEBRASKA
IOWA
MINNESOTA
WISCONSIN
MICHIGAN
NEW YORK
MAINE
VERMONT
NEW HAMPSHIRE
MASSACHUSETTS
CONNECTICUT
RHODE ISLAND
NEW JERSEY
PENNSYLVANIA
OHIO
INDIANA
ILLINOIS
NEVADA
CALIFORNIA
UTAH TERRITORY
COLORADO
KANSAS
MISSOURI
KENTUCKY
WEST VIRGINIA
VIRGINIA
MARYLAND
DELAWARE
WASHINGTON
NORTH CAROLINA
TENNESSEE
SOUTH CAROLINA
GEORGIA
ALABAMA
MISSISSIPPI
LOUISIANA
ARKANSAS
INDIAN TERRITORY
TEXAS
ARIZONA TERRITORY
NEW MEXICO
FLORIDA
MANITOBA
NOVA SCOTIA
BAHAMA ISLANDS
Gulf of California
California Peninsula
Lake Winnepeg
Lake of the Woods
Lake Superior
Lake Michigan
Lake Huron
Lake Erie
Lake Ontario
Chicago
St. Louis
Cincinnati
New Orleans
Buffalo
Philadelphia
Baltimore
Boston
Brooklyn
San Francisco
C. Flattery
C. Mendocino
C. Hatteras
C. Sable
C. Cod
Santa Barbara Islands
Florida Keys
Strait of Florida
Gt. Bahama Id.
Gulf of St. Lawrence
Bay of Fundy
St. Lawrence R.
Missouri R.
Columbia R.
Snake R.
Yellowstone R.
Great Salt L.
Great Interior Basin
Colorado Plateau
Wahsatch Mts.
Sierra Madre
Rio Grande R.
Pecos R.
Red R.
Arkansas R.
Canadian R.
Kansas R.
Republican Fork
Smoky Hill Fork
Nebraska R.
Ohio R.
Wabash R.
Mississippi R.
Alleghany Mts.
Appalachian System
Blue Ridge
Red River of the North
NATIONAL PARK
Black Hills

CHAPTER IV.

THE EASTERN OR NEW ENGLAND STATES.

NEW ENGLAND occupies the north-eastern portion of the United States, and is composed of six states: Maine, New Hampshire, Vermont, Massachusetts, Rhode Island and Connecticut.

2. **Surface.**—All the mountains of this section belong to the Appalachian System. The hilly country which lies at the base extends, in New England, nearly to the coast; so the surface is almost everywhere mountainous or hilly.

The Green Mountains are the longest range. They extend into Canada, and form part of the western boundary of Maine. The Hoosac and Taconic Mountains are the southern parts of this range.

A belt of hills extends from the White Mountains southward into Connecticut, and is crowned by many separate heights. Among these are Kearsarge, Monadnock and Wachusett.

There is another ridge of high land crossing the centre of Maine, from the White Mountains to New Brunswick. Katahdin and Mars Hill are the highest summits.

3. **Coast.**—Southward from Massachusetts Bay the coast and islands are generally low and sandy. The rest of New England has a bold and rocky coast, and the islands are of the same character.

Maine is penetrated by numerous inlets, and has a greater number of good harbors than any other state in the Union.

4. **Lakes and Rivers.**—Most of the Lakes and Rivers belong to the Atlantic System. Those on the western side of the Green Mountains are in the basin of the St. Lawrence.

5. As the rivers flow through a hilly country, they have many falls, and therefore afford great water-power for factories. These obstructions, however, prevent most of the rivers from being navigable for any great distance.

New England abounds with lakes of clear, bright water, which lie in the hollows among the hills and mountains, and give great beauty to the landscape.

The lakes, and swift, sparkling rivers, the forest-clad hills and mountains, make this region one of the most beautiful parts of our country.

6. **Climate.**—The winters are long and severe; the summers are short and warm.

7. **Productions and Occupations.**—The soil is not generally very rich, and the surface is rough and broken. Agriculture therefore, in most parts of New England, is less profitable than some other kinds of business.

1. **Agriculture.**—Corn, wheat and oats are raised, but not enough for the wants of the people. There is an abundance of excellent potatoes, and grass grows luxuriantly. Hay is an important product.

2. **Grazing** is extensively carried on in all parts of this section, for a hilly country is better adapted to grazing than to agriculture.

Vermont is the principal grazing state of New England. Great quantities of wool, butter, cheese, and fine breeds of cattle, are raised in this state.

3. **Fishing.**—Nearly all the towns along the coast are engaged in the fisheries. Cod and Mackerel are caught upon the coast of New England and upon the Banks of Newfoundland. Great quantities are salted, and sent to all parts of the world.

Massachusetts has more vessels employed in the fisheries than any other state in the Union. Whales are taken in the North Pacific Ocean.

4. **Forests.**—The forests are of great value in the three northern states, particularly in Maine. Lumber is the chief production of that state. The three southern states are more thickly settled, and the woods are therefore not so extensive.

The lumbermen pass the winters in the forests, felling the trees and cutting them into logs. They are then drawn over the deep snow to the banks of the streams. In the spring the logs are formed into rafts, and floated down the rivers to the mills, where they are sawed into boards and other kinds of lumber.

5. **Minerals.**—The most important minerals are various kinds of building-stone. Granite is everywhere abundant. Vermont is rich in quarries of slate and marble. In the vicinity of Newburyport, Mass., valuable deposits of silver and lead ores have recently been discovered.

6. **Manufacturing** is the principal occupation in the three southern states and in New Hampshire. Massachusetts takes the lead in this business, and is one of the most important manufacturing states in the Union. The principal manufactures are cotton and woollen goods, machinery, boots and shoes. About one half the boots and shoes used in the United States are made in this state.

7. **Commerce.**—New England has a great trade with foreign nations and with other parts of the United States. Massachusetts is the second commercial state in the Union. Manufactured goods are the principal exports from the three southern states and from New Hampshire. Lumber is the chief export from Maine, and grazing products from Vermont.

NEW ENGLAND COAST SCENERY.

8. The **Inhabitants** are mostly of English descent. They are remarkable for their energy, thrift and intelligence. Though the climate is severe, and much of the soil unfertile, they have made New England one of the wealthiest parts of the Union.

Questions.—What mountain-system crosses New England? What range between Maine and Canada? Where is the belt of hills to which Kearsarge, Monadnock, and Wachusett belong? Katahdin and Mars Hill? To what *mountain-system* do these mountains belong? Have Maine and New Hampshire a sandy, or a rocky coast? Connecticut? Cape Cod Peninsula? The north-eastern coast of Massachusetts? Of what use are the falls and rapids in the rivers of New England? Why are not the rivers generally navigable?

Why is not agriculture the leading business? Which of the agricultural productions are used for cattle? For the people? Why is grazing more profitable than agriculture in this section? What are the grazing products of Vermont? Name all the grazing products mentioned in Chapter XII., Part I. Where are the fishing towns? Why is Vermont not engaged in the fisheries?

Which state has the most valuable forests? Where do you find granite? Slate and marble? Are the products of the fisheries animal or vegetable? Of grazing? Of agriculture? Name the four manufacturing states. What are their principal exports? What is the chief export of Maine? Of Vermont? What has made this section so wealthy—the fertile soil, or the industrious habits of the people? What kind of climate is that of New England?

9. MAINE.—The surface is generally hilly. A large part of the state is still covered with magnificent forests of pine, spruce, hemlock and other valuable trees.

Most of the towns are in the southern half of the state, and are situated upon the river banks or upon the numerous rocky inlets of the coast. They are chiefly engaged in fishing, commerce, and the sawing of logs into lumber.

10. *Towns.*—Augusta is the capital. Portland, the largest town, is built upon a high peninsula, and overlooks one of the best and most beautiful harbors in America. It is one of the leading commercial cities of New England.

Bangor, sixty miles from the mouth of the Penobscot, is one of the greatest lumber-markets in the United States. The river is navigable for large vessels to this place. Lewiston, Biddeford and Saco have extensive cotton-mills.

ICE CUTTING.

11. NEW HAMPSHIRE is a manufacturing and farming state, and is remarkable for its magnificent scenery. It is sometimes called the Granite State. Except a narrow strip along the coast, nearly the whole state is covered by granite hills and mountains, which are clothed with the original forests.

Mount Washington, tbe highest peak of the White Mountain group, is 6284 feet high, and is the loftiest summit in the northern part of the Appalachian System.

There is no finer scenery east of the Mississippi River than is presented by this group of wild and beautiful mountains. From the top of Mount Washington, on a clear day, you may see Mount Monadnock, in the south, a hundred miles away; and tbe ocean beyond Portland harbor, which looks like a silver line on the horizon.

Lake Winnipiseogee (*win-ne-pe-saw′-ke*) is one of tbe loveliest lakes in New England. The name means, in the Indian language, "Beautiful Lake among the Highlands."

12. *Towns.*—Concord is the capital. Manchester, Nashua, and Dover are the largest towns. They are engaged in manufacturing, and are situated in the southern part of the state.

Portsmouth is the only seaport. It has an excellent harbor, but hardly any commerce, the exports of the state being sent by railroad to Boston and other cities. Opposite the town there is a United States navy-yard in Kittery, Maine.

13. VERMONT is an agricultural and grazing state. The name means "green mountain," and is derived from the mountains which cross the state, and are covered with evergreen forests of pine, fir, spruce and hemlock.

Among the deciduous trees—that is, trees which cast their leaves in winter—the sugar-maple is one of the most common. The sap of the tree is made into maple sugar, which is quite an important production of tbis state.

14. *Towns.*—Montpelier is the capital. Burlington, on Lake Champlain, is the largest town, and is the chief centre of commerce. Lake Champlain is navigable for steamboats, and Burlington is connected by railroad with New York, Boston and Montreal.

Rutland is the next in size, and owes its prosperity, mainly, to its quarries of beautiful marble. The other towns are small; for there is hardly any manufacturing in the state, and tbe commerce is not large.

15. MASSACHUSETTS is, next to Rhode Island, the most thickly-settled state in the Union, and is one of the wealthiest. Yet the climate is severe, and the soil is, in most places, naturally poor.

The western part of the state is mountainous. The rest is hilly, except in the south-east, where it is low and sandy. Manufacturing is the principal business, and manufactured goods are the leading exports; but there are, besides these, granite, ice and salt fish. It has been well said that Massachusetts exports none of her natural productions but her rocks and her ice.

Massachusetts contains a greater number of cities and large towns than any other New England state. The commercial and fishing towns are on the coast. Most of the manufacturing towns are in the interior.

16. *Towns.*—Boston, the capital, is the largest town in New England, and is one of the great commercial cities of the United States. It holds a high rank for its schools and literary institutions.

Boston is surrounded by many large and pleasant towns, which are inhabited chiefly by people who transact business in the city. Cambridge, tbe seat of Harvard University, is one of the most beautiful of these suburban cities.

Charlestown, where the battle of Bunker Hill was fought, has lately become a part of Boston.

Worcester is next in size to Boston, and is a manufacturing city. Lynn is famous for the making of ladies' shoes.

The other most important manufacturing places are Lowell, Lawrence, Fall River, Springfield and Taunton. There are also a great many smaller factory-towns in various parts of the state.

New Bedford is the greatest whaling-port in the world. But this business has greatly declined, owing to the scarcity of the whales, and the people are now engaging in manufactures. Gloucester has more vessels in the cod and mackerel fisheries than any other place in the United States.

17. RHODE ISLAND is the smallest state in the Union, but is the most thickly settled. The great prosperity of the state is owing principally to its extensive manufactures. The surface is generally hilly.

Several small streams, which have a steep descent, flow into Narragansett Bay, and afford water-power for the towns and villages which are situated upon their banks.

18. *Towns.*—Providence and Newport are the capitals. Providence is the second city in size in New England. It has extensive foreign and domestic commerce and a great variety of manufactures.

Newport is the finest watering-place in the country, and has one of the best harbors.

The largest manufacturing towns, besides Providence, are Warwick, Woonsocket, Pawtucket, and Westerly.

19. CONNECTICUT is a manufacturing state. It is named after the principal river of New England. The word means, in the Indian language, "long river." The valley of the Connecticut has a rich soil, and is the most fertile part of this section.

The state is crossed by the Hoosac Mountains, and by several parallel ranges of hills. Manufacturing is carried on in nearly all the towns. Those upon the coast are engaged in commerce and the fisheries, as well as in manufacturing.

20. *Towns*—Hartford, the capital, is an important manufacturing and business centre. New Haven is third in size among the cities of New England. It is a beautiful place, famous for its elm trees, and is the seat of Yale College.

Bridgeport is the third city of Connecticut, and is one of the principal manufacturing towns in the state. New London has a very good harbor, and ranks next to New Bedford as a whaling-port. Norwich, Meriden, Middletown, and Waterbury are important places.

Questions.—*Maine.*—Which of the United States has the most numerous harbors? Is the northern part of Maine thickly settled? What valuable product is found in this state? How do you reach Bangor from the sea? What is likely to be the cargo of a ship sailing from this place? Which is the larger,—Portland or Bangor?

New Hampshire.—Why is this called the Granite State? Which is the highest mountain in New England? Can you see Mount Washington from Mount Monadnock? What are the chief occupations in this state? Name the four principal manufacturing states. Why has Portsmouth but little commerce?

Vermont.—What are the chief occupations? What are the principal exports? Name the evergreen trees. The deciduous. What is a deciduous tree? What other deciduous trees do you know? By what routes does Burlington carry on its commerce? Where would you go to purchase marble? Which is the larger,—Burlington or Rutland? Why are the towns in Vermont generally small?

Massachusetts.—What is the surface of the south-eastern part? What, then, is the surface of Cape Cod Peninsula? What rank does this state hold in manufacturing? In commerce? In the fisheries? Where are most of the fish caught, which are exported? Why is not agriculture the leading business? What is the principal business of the coast towns? Of the interior towns? Name the chief manufacturing towns. Why are the people of New Bedford engaging in manufactures?

Rhode Island.—What has made this state so wealthy? What are the principal occupations of Providence? Name the other factory towns. Into what bay do the streams flow, upon which most of these towns are situated?

Connecticut.—What is the business of most of the towns? What business have the coast towns besides manufacturing? What rank, in regard to size, does New Haven hold among the New England towns? Which is the second New England town? The first?

QUESTIONS ON THE MAP OF NEW ENGLAND.

Position and Area.—Bound New England, Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut. Which one is about as large as all the rest together?

Outline.—Name the bays on the coast of Maine. Of Massachusetts. Of Rhode Island. What sound south of Cape Cod? Of Connecticut? Name all the bays and sounds of New England, from north-east to south-west. Where is Mt. Desert Island? Nantucket Island? Martha's Vineyard? Block Island? What island belonging to New York State, south of Long Island Sound? Where is Cape Ann? Cape Cod? What bay lies north of Cape Cod Peninsula?

Surface.—In what state are the Green Mountains? The Hoosac? The Taconic? Into what country north of New England do the Green Mountains extend? They partly separate Maine from what country? Where are the White Mountains? To what group does Mount Washington belong? Where is Katahdin? Mars Hill? Mount Kearsarge? Mansfield? Sunapee? Monadnock? Wachusett? Holyoke? Mt. Tom?

The **Lakes and Rivers** belong to two systems,—the Atlantic and the St. Lawrence.

Atlantic System.—Name these rivers, from north-east to south-west. In what direction do they flow? Describe the St. John. [Note.—*In describing a river, mention in what lake or mountain it rises, and in what part of the state; in what direction it flows, and into what water: also what towns are connected with it.*] Describe the St. Croix. The Penobscot. The Kennebec. The Androscoggin. Saco. Piscataqua. Salmon Falls. Merrimac. Charles. Blackstone. Thames. Connecticut. Housatonic.

By what river do the waters of Grand Lake empty into the Atlantic? The Schoodic Lakes? Chesuncook? Moosehead? Umbagog? Winnipiseogee? What lake empties its waters by a small river into Casco Bay?

St. Lawrence System.—By what river does Lake Memphremagog flow into the St. Lawrence? By what does Lake Champlain? Which end is the head of this lake? The foot? What rivers in Vermont flow into this lake? In what mountains do these four rivers rise?

Towns.—Describe the situation of the following towns, telling whether they are upon the coast or in the interior, upon what body of water, and in what part of the State:

Maine.—Eastport, Belfast, Bangor, Rockland, Bath, Augusta, Portland, Saco, Biddeford, Lewiston.—Which is the most easterly town in the United States?

New Hampshire.—Portsmouth, Dover, Great Falls, Exeter, Nashua, Manchester, Concord.

Vermont.—St. Albans, Burlington, Montpelier, Rutland, Bennington, Brattleboro, Bellows Falls.

Massachusetts.—Newburyport, Gloucester, Salem, Lynn, Cambridge, Boston, Plymouth, New Bedford, Fall River, Taunton, Lawrence, Lowell, Fitchburg, Worcester, Springfield, Pittsfield, Westfield.

Rhode Island.—Providence, Newport, Woonsocket, Pawtucket, Warwick, Westerly.

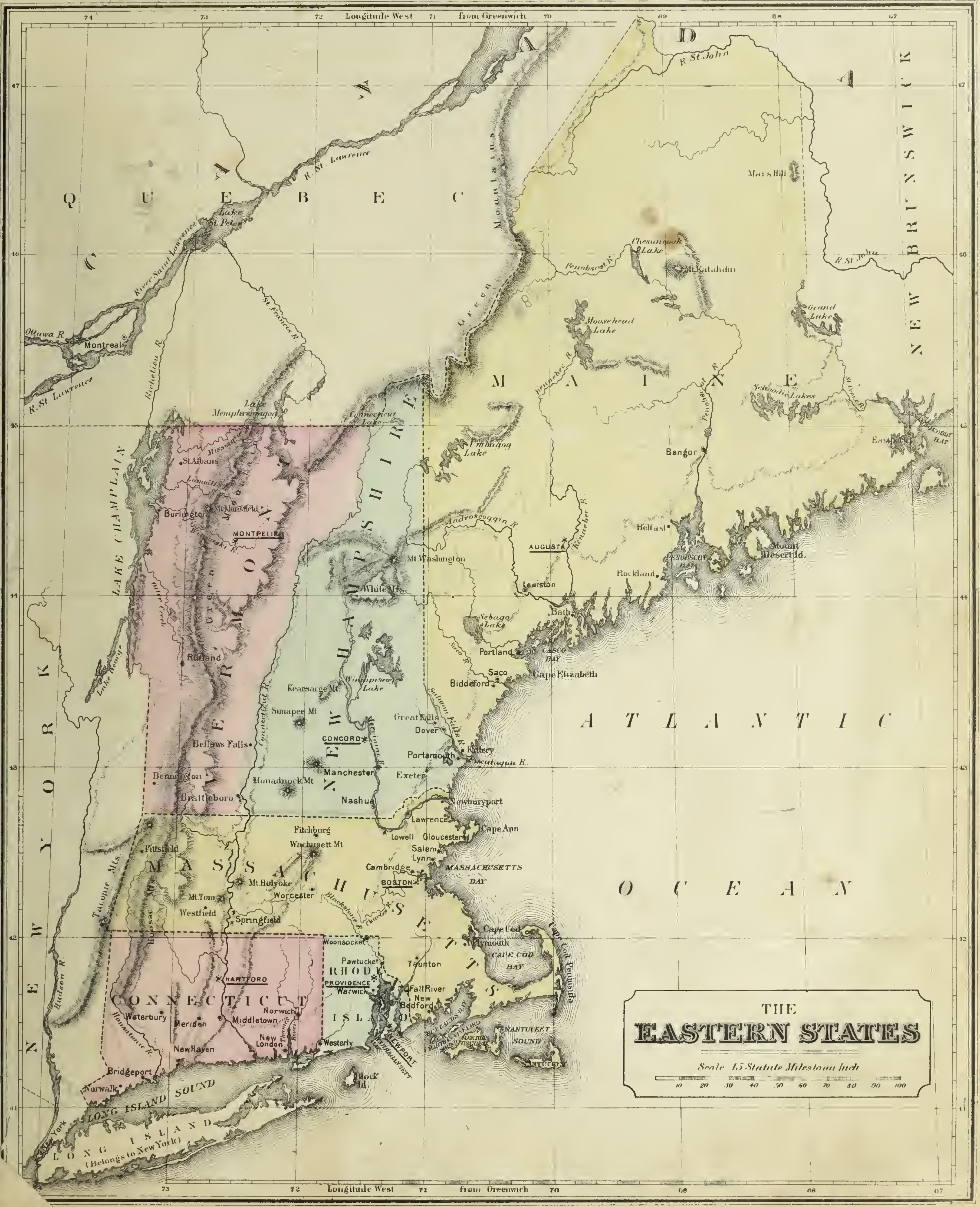
Connecticut.—New London, Norwich, New Haven, Bridgeport, Norwalk, Hartford, Meriden, Middletown, Waterbury.

Questions on the Map and Text.

How could a log of hemlock, thrown into the Lamoille River, reach the Atlantic Ocean? Which town has probably the most snow,—Montpelier or New Bedford? Which is most likely to freeze over,—the Penobscot or the Thames?

Load a brig with lumber at Bangor: in what waters would she sail, on a passage to New Orleans? Load a schooner at Eastport with hay and potatoes: what waters would she cross in going to Charleston? Load a vessel with ice and cotton goods at the principal seaport in New England, and send it to the principal seaport of the West Indies: name these two cities, and tell what cargo she would bring back.

[Note.—*Let each pupil describe the situation of some town, telling all that he knows about it, until all the towns on the map have been given.*]


THE
EASTERN STATES
Scale 15 Statute Miles to an Inch
10 20 30 40 50 60 70 80 90 100
Longitude West from Greenwich
74
73
72
71
70
69
68
67
47
46
45
44
43
42
41
CANADA
QUEBEC
NEW BRUNSWICK
MAINE
NEW HAMPSHIRE
VERMONT
MASSACHUSETTS
CONNECTICUT
RHODE ISLAND
NEW YORK
LONG ISLAND
(Belongs to New York)
LONG ISLAND SOUND
ATLANTIC OCEAN
R. St. Lawrence
River Saint Lawrence
Lake St. Peter
Ottawa R.
Montreal
Richelieu R.
St. Francis R.
Lake Memphremagog
Connecticut Lake
Green Mountains
R. St. John
Penobscot R.
Chesuncook Lake
Mt. Katahdin
Mars Hill
Moosehead Lake
Kennebec R.
Grand Lake
Schoodic Lakes
St. Croix R.
Passamaquoddy Bay
Eastport
Bangor
Belfast
Penobscot Bay
Mount Desert Id.
Rockland
Umbagog Lake
Androscoggin R.
AUGUSTA
Lewiston
Bath
Sebago Lake
Portland
Casco Bay
Cape Elizabeth
Saco
Biddeford
Mt. Washington
White Mts.
Winnipiseogee Lake
Kearsarge Mt.
Sunapee Mt.
Great Falls
Dover
Salmon Falls R.
CONCORD
Kittery
Portsmouth
Piscataqua R.
Manchester
Exeter
Monadnock Mt.
Nashua
Merrimac R.
Connecticut R.
Bellows Falls
Bennington
Brattleboro
Rutland
Otter Creek
Lake George
Lake Champlain
St. Albans
Lamoille R.
Missisque R.
Mt. Mansfield
Burlington
Winooski R.
MONTPELIER
Newburyport
Lawrence
Lowell
Cape Ann
Gloucester
Salem
Lynn
Fitchburg
Wachusett Mt.
Cambridge
BOSTON
MASSACHUSETTS BAY
Pittsfield
Taconic Mts.
Mt. Holyoke
Mt. Tom
Worcester
Westfield
Springfield
Blackstone R.
Charles R.
Hoosac Mts.
Cape Cod
Plymouth
Cape Cod Bay
Cape Cod Peninsula
Woonsocket
Pawtucket
Taunton
PROVIDENCE
Warwick
Fall River
New Bedford
Buzzards Bay
Marthas Vineyard
Nantucket Sound
Nantucket
NEWPORT
Westerly
Block Id.
HARTFORD
Waterbury
Meriden
Middletown
Norwich
New London
Thames River
Housatonic R.
New Haven
Bridgeport
Norwalk
New York
Hudson R.

PROPOSED BRIDGE BETWEEN NEW YORK AND BROOKLYN.

CHAPTER V.

THE MIDDLE ATLANTIC STATES

AND THE DISTRICT OF COLUMBIA.

THIS section lies partly on the Atlantic Slope, and partly within the Great Central Plain.

2. **Surface.**—All the mountains of this section belong to the Appalachian System. The highest ranges are the Alleghany Mountains and the Blue Ridge. The Blue Ridge is the longest chain in the system, and extends from New York to Georgia.

In the northern part of New York there are several irregular chains resting upon a plateau. They are called the Adirondacks. Mt. Marcy, the crowning summit of the Adirondacks, is the highest mountain in the Middle States. It is about the same height as Katahdin and Mt. Mansfield, in New England, which are between 4000 and 6000 feet high.

The Adirondacks are clothed with dense forests, in which bears, deer and other game are found. In the deep shady valleys lie many cool lakes, which abound with the finest kinds of fish.

3. West of the mountains, the surface is hilly. The country between the mountains and the sea consists of two regions: a low tract upon the coast and a hilly district in the interior.

4. **Coast.**—The coast is generally sandy, but in many places is wet and marshy.

The Great Dismal Swamp is a tract of marshy land, covered with reeds and a heavy growth of trees. It is thirty miles long and ten miles wide. In the middle is a shallow, gloomy body of water, called Lake Drummond.

This level coast-region is a part of the Atlantic Plain. It is very narrow in New York; for the hilly country comes close to the sea; but toward the south it constantly widens, as the hills and mountains become more and more distant from the shore.

5. **Lakes and Rivers.**—All the rivers rise in the Appalachian Mountains, or in the hilly country at their base. Most of the Lakes are in New York and belong to the Basin of the St. Lawrence.

6. The mountain-chains are cut across by numerous valleys, through which the rivers flow in various directions. Some of these valleys are steep and narrow, and are famous for their fine scenery.

The place where the Hudson River flows through a cleft in a mountain-chain is called the "Highlands of the Hudson."

The water from the Great Lakes flows over a precipice 165 feet high, forming the Cataract of Niagara. This is the most magnificent waterfall in the world.

Lake George is a deep mountain lake of great beauty. It is said to have as many islands as there are days in the year.

7. **Climate.**—The climate in the northern part of this section is like that of Canada and New England. The southern part has a much milder temperature.

8. **Productions and Occupations.**—Manufacturing is the leading business of this section, as it is in New England; but agriculture, grazing, mining and commerce are very important. The rivers afford almost unlimited water-power; and the great abundance of coal makes it specially favorable for manufacturing by steam.

1. **Agriculture** is more profitable here than in New England. The climate is warmer, the soil richer, and there is more level land. Good crops of corn, wheat and oats are raised. New York and Pennsylvania produce more hay and potatoes than any other states in the country.

Tobacco is one of the chief productions of Maryland and Virginia. The latter is the second tobacco growing state in the Union.

The low country supplies the great cities with fruits and garden vegetables.

2. **Grazing** is a very profitable business in this section. No other states in the country produce such quantities of butter and cheese as New York and Pennsylvania. New York is also one of the leading states in the production of wool.

3. **Fishing.**—The oyster-fisheries are of great value in the shallow waters along the coast,—especially in the Delaware and Chesapeake Bays.

4. **Forests**, like those of New England, still cover the mountains and unsettled districts.

5. **Minerals.**—The mineral wealth is very great, except in Delaware. No one of the United States produces so much coal and iron as Pennsylvania. A great quantity of oil is obtained from the petroleum wells in the western part of the state.

New York is deficient in coal, but rich in iron-mines. In the central part of the state are found the most valuable salt-springs in the country.

Maryland, Virginia and West Virginia have extensive mines of coal and iron, but they are not much worked. Limestone, slate, marble and other building stones are common.

6. **Manufactures.**—The principal manufactures are woolen, cotton and iron goods, boots and shoes, flour and corn-meal, spirituous and malt liquors.

New York and Pennsylvania are the greatest manufacturing states in the Union. The other states of this section are more engaged in agriculture than in manufactures.

7. **Commerce.**—This section has a greater foreign and domestic commerce than any other part of the country. It contains three of the largest commercial cities in the Union—namely, New York, Philadelphia and Baltimore. They are the nearest outlets for the productions of the Central States.

The commerce of New York is more extensive than that of any other state. The exports are the manufactures and other productions of this section; the grain, beef, pork and tobacco of the Central States, and the cotton of the South.

Most of the manufactured goods used in the Central and Southern States are received from the Middle States and New England.

9. The **Inhabitants** are generally of English descent, with a large proportion of Germans and Irish.

In Eastern Pennsylvania there are many descendants of the early German settlers, who have remained to this day quite distinct from the surrounding population. They have a language of their own, and follow many of the customs of their forefathers.

Questions.—To what system do the mountains of this section belong? Describe the surface east and west of the mountains. Where is the narrowest part of the Atlantic Plain in this section? The widest? Where is the marshy land?

Where do the rivers rise? How are they enabled to pass through the mountain-chains? How many islands are there said to be in Lake George?

Which of the four middle states has the mildest climate? Why? Which are the coldest—the mountains or low lands? Why? Which state has a climate like New England?

What advantages do these states have for manufacturing? Of what materials are the manufactured goods made?

Which of these states are more engaged in agriculture than in manufactures? Why is agriculture more profitable here than in New England? What kinds of grain are raised? Which two of the United States produce the most hay and potatoes? Butter and cheese?

Name the principal mineral productions. Where is petroleum found? Which states have coal-mines? Iron-mines? Which state produces the most iron and coal? Which is deficient in mineral wealth?

What articles are imported from the Central States? The Southern? What are returned to them? What is said of the inhabitants?

10. NEW YORK is the richest and most populous of the United States, and has the greatest number of large towns.

11. *Towns.*—New York City is one of the chief commercial sea-ports in the world, and is the greatest city upon the Western Continent. Brooklyn is occupied mainly by people who transact business in New York.

These two cities, with the populous towns around them, contain (1877) about two millions of inhabitants.

12. Buffalo and Albany are large commercial towns. They are at opposite ends of the railroad and canal which cross the state from east to west. Albany is the capital.

The products of the Central States pass through these places, and are sent down the Hudson to New York City, or by railroad to Boston.

Rochester is situated at the beautiful falls of the Genesee River, which are nearly 100 feet high. The great water-power thus afforded is used for the numerous flour-mills and other factories, which have made the place so prosperous.

Troy is an important manufacturing and commercial city. Saratoga is visited by invalids for its mineral-springs, and is a fashionable watering-place.

Syracuse is an important manufacturing place, and is in the midst of the greatest salt-producing region in the country.

13. PENNSYLVANIA is the rival of New York in manufactures, commerce and other occupations, and has many large towns and cities.

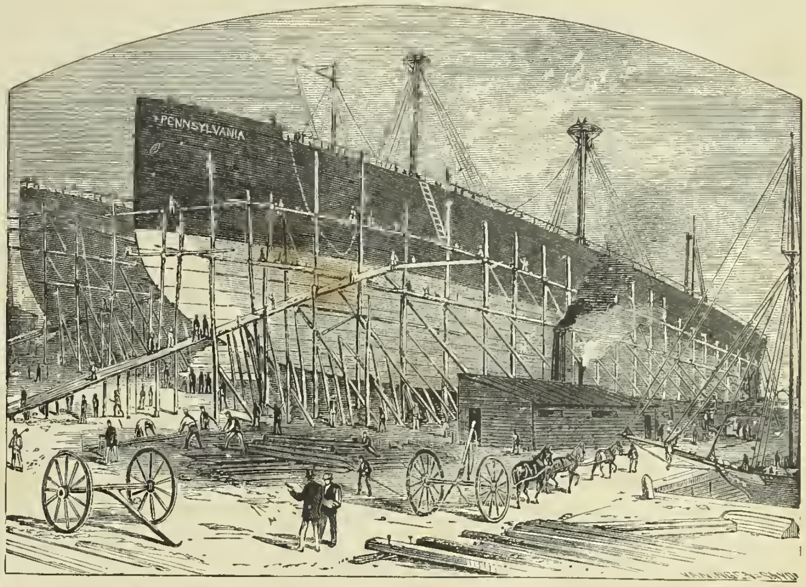
14. *Towns.*—Philadelphia is a great city, ranking next to New York in size and importance. It is the leading manufacturing town in the Union, and one of the first in the extent of its commerce. More coal is exported from Philadelphia than from any other port in the country.

15. Pittsburgh is beautifully situated at the head of the Ohio, surrounded by an amphitheatre of hills. It is a very important manufacturing and commercial city, and is the market for the petroleum oil so abundant in the western part of the state.

The productions of the Central States are received here and forwarded by railroad to Philadelphia.

Allegheny and Pittsburgh are at the head of the Ohio, where the Monongahela and the Alleghany Rivers meet. These cities form one large manufacturing community.

Around Scranton are mines of coal and iron, and the town has therefore become an important mining and manufacturing place. Harrisburg is the capital.



IRON SHIP-BUILDING ON THE DELAWARE.

16. NEW JERSEY supplies the markets of New York and Philadelphia with most of their fruit and vegetables. In the northern part of the state there are some very important manufacturing towns.

17. *Towns.*—Newark, the principal place, is a large manufacturing city upon the Passaic River. Jersey City is the next in size. It has extensive manufactures, and is a great thoroughfare for railway travel between the North and South.

Paterson is situated upon the Passaic River. The falls, just above the town, have a perpendicular descent of fifty feet. Fine American silk goods are made at Paterson.

Trenton, the capital, is a manufacturing town. Steamboats ascend the Delaware River to this point, but the rapids obstruct further navigation.

18. DELAWARE is the smallest state in the Union except Rhode Island. It is the centre of the peach-growing district of the United States.

19. *Towns.*—Wilmington is a large town, and is well known for its flour-mills and powder-works and for the building of iron steam-ships. The other towns are small. Dover is the capital.

20. MARYLAND is divided by the Chesapeake Bay into two parts, called the Eastern Shore and the Western Shore.

21. *Towns.*—Baltimore is one of the four great commercial sea-ports of our Atlantic coast. Like New York and Philadelphia, it is connected by railroad with the Central States. Baltimore is also a great manufacturing city.

Several streams which flow over the edge of the hilly country back of the city, afford immense water-power for the flour-mills, cotton-factories and iron-works. Baltimore is the chief place for the export of tobacco, flour and oysters.

Cumberland is among the coal-mines of the Alleghany Mountains, and is growing rapidly, on account of its trade in coal. Annapolis is the capital, and the seat of the United States Naval Academy.

22. VIRGINIA has a naturally fertile soil and beautiful climate. Rich mines of coal and iron are found among the mountains. Several noble rivers are navigable far into the interior of the state, and afford abundant water-power among the hills.

23. *Towns.*—Richmond is the capital and largest city. It is situated at the falls of the James River, which is navigable as far as

this place. Richmond is therefore a manufacturing and commercial town. Tobacco and flour are the principal manufactures.

Norfolk has one of the best harbors on the Atlantic coast, and has more commerce than any other town in the state. The largest navy-yard in the United States is situated at Norfolk and at the opposite town of Portsmouth.

24. WEST VIRGINIA lies principally in the valley of the Ohio, and is rich in iron, coal, salt and petroleum.

25. *Towns.*—Wheeling is the capital and largest town. It has become a place of much commercial importance, and is also engaged in manufacturing. Charleston has valuable salt springs.

26. The **DISTRICT OF COLUMBIA** is a small territory on the north bank of the Potomac. It contains the cities of Washington and Georgetown. Washington, the capital of the United States, has within a few years grown to be one of the great cities of the Union. It is remarkable for its broad, handsome avenues, and its noble public buildings.

The Capitol, where Congress meets, is the most magnificent building on the Western Continent, and one of the finest in the world. The largest ships ascend the Potomac River as far as Washington, and smaller vessels to Georgetown.

Questions.—*New York.*—Name the productions and occupations in which New York excels. What city on Lake Erie receives the products of the Central States? How are they sent to New York City? What are these productions?

Pennsylvania.—From what city in Pennsylvania does Philadelphia receive the products of the West? Do you suppose coal and iron cost as much in Philadelphia as in Boston? There is very little water-power in Philadelphia; how then do you suppose the manufactures are carried on? What is one of the principal exports of Philadelphia? Why is Pittsburgh a commercial town?

New Jersey.—Name the largest cities. Where are fine silk goods made? What river gives the water-power for the Paterson mills?

Delaware.—Is Delaware principally engaged in agriculture, or manufactures? In what town is manufacturing carried on?

Maryland.—What productions are received at Baltimore from the Central States? What are the chief exports of Baltimore? Name the manufactures. From what town among the Alleghany Mountains can Baltimore most conveniently obtain coal?

Virginia.—What natural advantages does this state possess for agriculture? For mining? Commerce and manufactures? Why is Richmond a manufacturing city? A commercial city?

West Virginia.—What is said of the principal city in West Virginia? What mineral production is obtained in Charleston?

District of Columbia.—For what building is Washington noted? To what city can large ships ascend the Potomac? Smaller vessels?

QUESTIONS ON THE MAP OF THE MIDDLE ATLANTIC STATES.

Position and Outline.—Bound New York, Pennsylvania, New Jersey, Delaware, Maryland, Virginia, West Virginia.

What bay between Delaware and New Jersey? What states nearly surround Chesapeake Bay? What capes at the entrance of Delaware Bay? Of Chesapeake Bay? What two states have no sea coast? To what state does Staten Island belong? Long Island? Where is Sandy Hook?

Surface.—What mountains in the northern part of New York? In what direction do these parallel ranges extend? What mountain-peak is the highest among the Adirondacks? On which side of the Hudson are the Catskill Mountains? What two ranges cross the northern part of New Jersey? Which range crosses the Hudson at West Point? In what part of New York are the mountains of that state? By what river and lake are they separated from the Green and Taconic Mountains? Where are the "Highlands of the Hudson"?

What part of Pennsylvania is crossed by the Blue Ridge? The Alleghany Mountains? What two ranges in Pennsylvania west of the Alleghany Mountains? What is the most eastern range in Virginia? What ranges between Virginia and West Virginia? Between Virginia and Kentucky? In what general direction do the mountains of the Middle States extend?

[NOTE.—*The edge of the hilly country is marked by the faint lines extending from the Hudson to North Carolina. East of this line the surface belongs to the level Atlantic Plain.*]

What part of New Jersey is mountainous or hilly? What part is level? What part of Delaware is hilly? Level? Is any part mountainous? Is any part of Pennsylvania in the Atlantic Plain? What part of Maryland is mountainous? Hilly? Level? Virginia? What part of West Virginia is mountainous? Hilly?

Lakes and Rivers.—The lakes and rivers belong to three systems,—the St. Lawrence, the Atlantic, and the Gulf of Mexico Systems.

St. Lawrence System.—Name the rivers which flow from the Adirondacks into the St. Lawrence River. Into Lake Champlain. Ontario. Name the lakes whose waters flow through Oswego River into Lake Ontario. The Genesee River rises in the hilly country, north of the Alleghany Mountains;—describe its course. Name all the rivers and lakes of this section which belong to the Basin of the St. Lawrence.

Atlantic System.—What river flows from the Adirondacks into the Atlantic? What western branch does it receive? Where does the Passaic River rise? The Raritan? The Delaware? The North Branch of the Susquehanna? The West Branch? Name the southern tributary of the Potomac River.

What rivers flow from the Blue Ridge into Chesapeake Bay? Describe the James River. Name its southern tributary. Of what river is the Juniata a branch? The Lehigh and Schuylkill? Where is Dismal Swamp? Lake Drummond? Name all the rivers, with their branches, which flow into the Atlantic or its inlets. In what general direction do they flow? In what mountain system do they rise?

Gulf of Mexico System.—What rivers unite to form the Ohio? Name the tributaries of the Ohio in this section. In what mountains do they rise? Describe the course of the Alleghany River from its source in the hilly country. To what great river valley do the Ohio and its tributaries belong? Into what Gulf do the Ohio and its branches finally flow?

Towns.—Describe the situation of the following towns, telling whether they are upon the coast or in the interior, upon what body of water, and in what part of the state:

New York.—New York, Brooklyn, Rochester, Auburn, Schenectady, Utica, Ogdensburg, Watertown, Poughkeepsie, Oswego, Elmira, Binghamton, Buffalo. Name the towns on the Hudson River, from its source to its mouth. Between Troy and Buffalo. Where are Saratoga, Lockport? Kingston? Middletown?

New Jersey.—Camden, Trenton, Jersey City, Paterson, Newark, Elizabeth, New Brunswick, Princeton, Long Branch, Atlantic City.

Pennsylvania.—Philadelphia, Pittsburgh, Allegheny, Scranton, Reading, Harrisburg, Lancaster, Erie, Williamsport, Allentown, Pottsville, Wilkes-Barre, York, Easton, Norristown, Altoona, Chester, Danville, Titusville, Oil City.

Delaware.—Wilmington, Dover, Lewes.

Maryland.—Baltimore, Annapolis, Frederick, Cumberland.

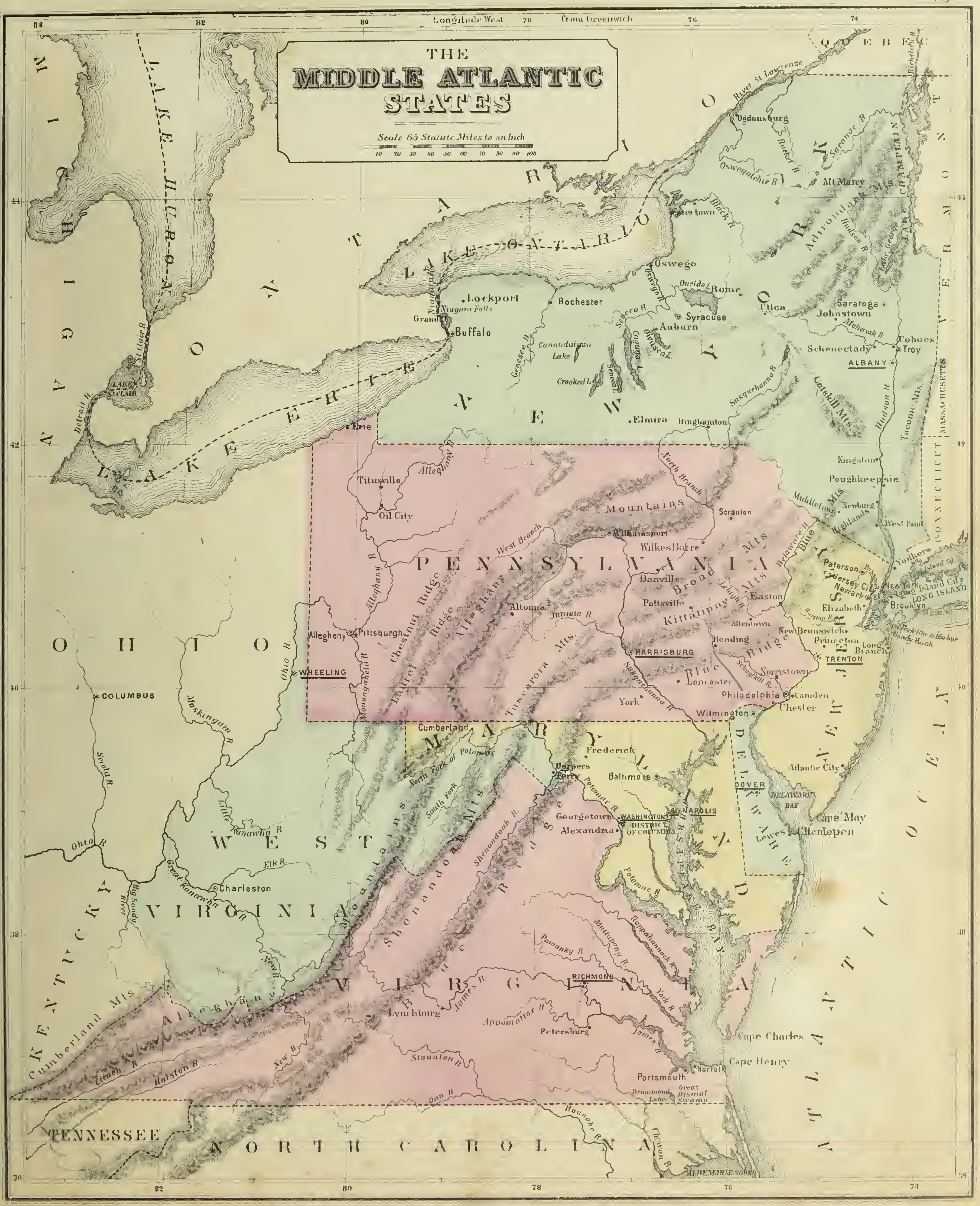
Virginia.—Norfolk, Portsmouth, Alexandria, Petersburg, Richmond, Lynchburg.

West Virginia.—Charleston, Wheeling, Harper's Ferry.

District of Columbia.—Washington, Georgetown.

Questions on the Map and Text.

The Genesee and Alleghany Rivers rise near each other;—follow the course of each to the Atlantic Ocean. How far are the Atlantic Rivers navigable—to the hilly country or the mountains? To what town is the Delaware navigable? The Potomac? The James? Why cannot a vessel sail above Rochester from Lake Ontario?


THE
MIDDLE ATLANTIC
STATES
Scale 65 Statute Miles to an Inch
10 20 30 40 50 60 70 80 90 100
Longitude West from Greenwich
84
82
80
78
76
74
44
42
40
38
36
QUEBEC
ONTARIO
LAKE ONTARIO
LAKE HURON
LAKE ERIE
LAKE ST. CLAIR
MICHIGAN
OHIO
KENTUCKY
TENNESSEE
NORTH CAROLINA
NEW YORK
PENNSYLVANIA
MARYLAND
DELAWARE
NEW JERSEY
WEST VIRGINIA
VIRGINIA
VERMONT
MASSACHUSETTS
CONNECTICUT
ATLANTIC OCEAN
River St Lawrence
Ogdensburg
Oswegatchie R.
Racket R.
Saranac R.
Mt Marcy
Adirondack Mts
Lake Champlain
Lake George
Hudson R.
Richelieu R.
Watertown
Black R.
Oswego
Oneida L.
Rome
Utica
Syracuse
Auburn
Seneca R.
Cayuga L.
Owasco L.
Seneca L.
Crooked L.
Canandaigua Lake
Genesee R.
Rochester
Lockport
Niagara Falls
Niagara R.
Grand I.
Buffalo
Saratoga
Johnstown
Mohawk R.
Schenectady
Cohoes
Troy
ALBANY
Catskill Mts
Taconic Mts
Susquehanna R.
Elmira
Binghamton
Erie
Kingston
Poughkeepsie
Newburg
Middletown
Highlands
West Point
Yonkers
Long Island Sd.
Paterson
Passaic R.
Jersey City
Newark
New York
Long Island City
Brooklyn
LONG ISLAND
Elizabeth
Raritan R.
New Brunswick
Princeton
Long Branch
Sandy Hook
New York Bay & Harbor
TRENTON
Titusville
Oil City
Allegheny R.
North Branch
Scranton
Mountains
Williamsport
West Branch
Wilkes Barre
Delaware R.
Blue Mts
Danville
Broad Mts
Pottsville
Lehigh R.
Kittatinny Mts
Easton
Allentown
Reading
Ridge
Altoona
Juniata R.
Chestnut Ridge
Laurel Ridge
Alleghany Mts
Allegheny
Pittsburgh
Monongahela R.
WHEELING
Ohio R.
HARRISBURG
Blue Ridge
Schuylkill R.
Norristown
Lancaster
York
Tuscarora Mts
Philadelphia
Camden
Chester
Wilmington
Cumberland
Potomac
North Fork of Potomac
South Fork
Frederick
Harpers Ferry
Baltimore
DOVER
ANNAPOLIS
WASHINGTON
DISTRICT OF COLUMBIA
Georgetown
Alexandria
Atlantic City
DELAWARE BAY
Cape May
Lewes
C. Henlopen
Chesapeake Bay
COLUMBUS
Muskingum R.
Scioto R.
Little Kanawha R.
Elk R.
Great Kanawha R.
Charleston
Big Sandy River
New R.
Shenandoah Mts
Shenandoah R.
Rappahannock R.
Mattapony R.
Pamunky R.
RICHMOND
York R.
James R.
Lynchburg
Appomattox R.
Petersburg
Cape Charles
Cape Henry
Norfolk
Portsmouth
Drummond Lake
Great Dismal Swamp
Staunton R.
Dan R.
Roanoke R.
Chowan R.
New R.
Holston R.
Clinch R.
Cumberland Mts
Alleghany Mts
ALBEMARLE SOUND

CHAPTER VI.

THE SOUTHERN STATES,

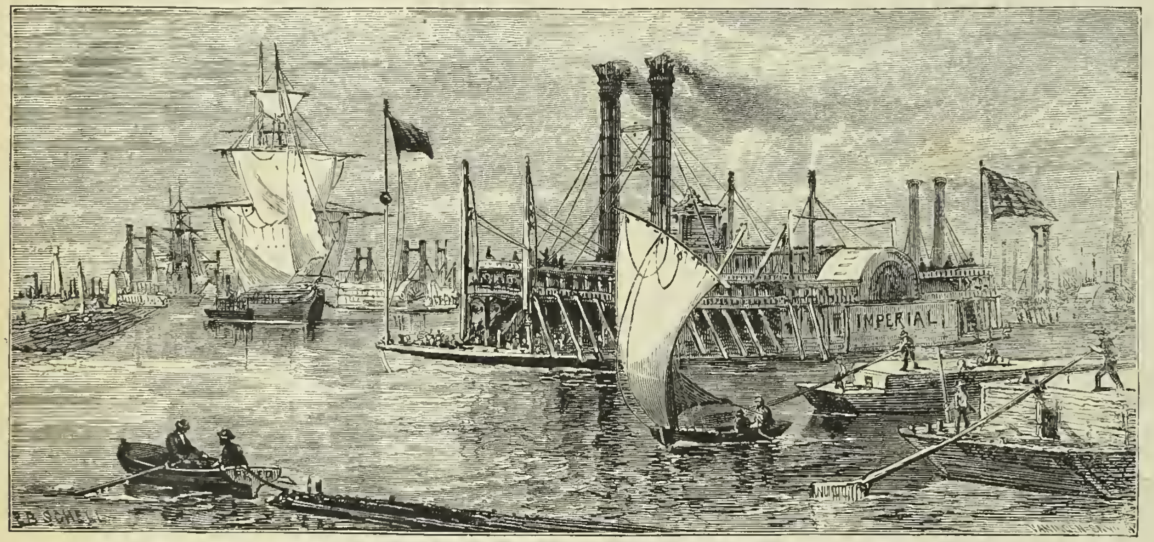
EXCEPT TEXAS.

THIS section belongs to the Atlantic Slope and the Great Central Plain.

2. **Surface.**—The Appalachian Mountain System, and the hilly country at its base, cover about one-half of North and South Carolina, Georgia, Alabama and Tennessee. The hilly country also includes the north-eastern part of Mississippi.

The north-western part of Arkansas is occupied by some ranges of hills called the Boston Mountains. They are connected with the Ozark Mountains of Missouri. The rest of this section is low, and much of it is swampy.

3. **Coast.**—The coast is raised but little above the sea. It is lined with long, sandy islands, and the water is shallow. There are therefore but few good harbors.



VIEW ON THE MISSISSIPPI RIVER OPPOSITE NEW ORLEANS.

4. **Lakes and Rivers.**—The lakes and rivers are navigable for steamboats throughout the low lands, and afford abundant water-power among the hills.

Throughout this section the land near the Mississippi River is generally low and marshy, and is often overflowed. At a few points the banks rise into elevations called bluffs, and upon these bluffs the principal towns are situated.

There are no bluffs, however, in the lower part of the river, and New Orleans is defended by great banks of earth called levees (*lev′-ies*), which extend above and below the city for sixty miles.

The lakes are in the level country. They are therefore shallow, and some of them become marshes in summer.

The marshes and the waters of the low coast-region are filled with alligators and other reptiles, and swarm with insects. This is the case with all hot and moist places.

5. **Climate.**—The summer is hot, and the winter is like the autumn of the Northern States. Near the Gulf the weather is almost as warm and moist as that of the Torrid Zone, and the vegetation resembles that of tropical countries. The marshy low lands of the Southern States are very unhealthy in summer.

6. **Productions and Occupations.**—This is chiefly an agricultural region. Cotton is the great staple. More than half of the cotton in the world is raised in the Southern States.

1. **Agriculture.**—Mississippi, Alabama, Georgia and Louisiana are the principal cotton states, but cotton is raised in all the states of this section.

Indian corn and other kinds of grain are cultivated in all the Southern States, but the great grain-field of the country is the West, and not the South.

Rice is cultivated in the marshy low lands of the coast. South Carolina raises most of the rice produced in the United States.

The sweet potato, in the Southern States, takes the place of the white potato, which does not succeed well.

Tobacco is not an important product, except in Tennessee and North Carolina, though it is produced in all the Southern States. This plant is most extensively raised in a part of the Middle Atlantic and Central States.

The sugar cane is grown near the Gulf of Mexico, but chiefly in Louisiana. Sugar is one of the chief exports of that state.

Tropical fruits, such as oranges, lemons and figs, grow well in Florida and Louisiana, as far north as the thirtieth degree of latitude.

2. **Grazing.**—The uplands afford good pasturage for cattle, sheep and swine; but the South does not raise so much live stock as the Central or Middle Atlantic States.

Mules are more generally used at the South than at the North, and immense numbers of these useful animals are raised in all the Southern States.

3. **Forests.**—The mountains are well wooded with trees like those of the Northern States. The low lands are covered with a variety of evergreen trees, such as the live-oak, the beautiful magnolia and the palmetto. The cypress grows in the swamps. In the sandy regions near the coast there are forests of the long-leaved pitch-pine, a different tree from the pine of the Northern States.

From the sap of the Southern pine are obtained turpentine, tar, pitch and resin. These are called naval stores, because they are used in shipbuilding.

Lumber and naval stores are largely exported from the Atlantic States of this section, particularly from North Carolina, where they are among the chief productions.

The palmetto is a small kind of palm. The live-oak is much prized for shipbuilding. The timber of this tree is one of the chief exports of Florida.

4. **Minerals.**—Gold is found among the mountains of Georgia and North Carolina. Rich mines of coal and iron and other useful minerals exist in the Southern States, but they are not much worked.

5. **Manufacturing** is not a leading business.

6. **Commerce.**—The principal export is cotton, which is sent to Europe and the Northern States. Most of the commerce is carried on through New Orleans, Charleston, Savannah and Mobile.

7. The **Inhabitants** are chiefly of English descent. Most of the laboring people are negroes. The South is not so thickly settled as the North, and the towns are fewer and much smaller.

Questions.—To what system do the mountains of South Carolina belong? What other Southern States contain the mountains and hills of this system? Is Florida crossed by these mountains and hills? Is Louisiana? What part of Mississippi is hilly? Do the high lands of Arkansas belong to this system? Why are not the harbors generally good?

How far are the rivers navigable? Why are most of the towns on the Mississippi River situated on the bluffs? Why are levees built near New Orleans? Why are the lakes shallow? What sort of places are favorable for reptiles and insects? Which has the colder climate—Tennessee or Florida?

Which states produce the most cotton? The most grain? The most rice? Sweet potatoes? Tobacco? Sugar-cane? Name those agricultural productions which grow in every one of the Southern States. Name those which grow only in certain parts of the South.

What trees grow in the low lands? Are these trees found at the North? Which of the forest products are used in shipbuilding? Are the coal and iron mines as important in this section as in the Middle States? To what countries is the cotton sent? From what commercial cities of this section?

8. **NORTH CAROLINA.**—The highest mountains east of the Mississippi are in this state. They are Clingmans Peak and Mt. Mitchell.

9. *Towns.*—Wilmington, the largest town, exports lumber, naval stores and tobacco. Raleigh is the capital.

10. **SOUTH CAROLINA** is called the Palmetto State, because the palmetto grows abundantly on the coast.

11. *Towns.*—Charleston is the largest city. It exports more rice than any other town in the Union. Columbia is the capital.

12. **GEORGIA** has a very enterprising population, and is more engaged in manufacturing than any other Southern State.

Okefenokee Swamp, in the low coast-region, is a great extent of country, filled with pools and islands, and covered with vines, bay trees and underwood. Alligators, frogs, lizards and cranes find their home in these shallow waters.

13. *Towns.*—Savannah is the largest city, and the only seaport. It is the rival of Charleston in commercial importance.

Most of the other towns are in the hill-country, where they have abundant water-power for their factories. Atlanta and Augusta are the largest.

Atlanta, the capital, is the second city in the state, and is growing rapidly on account of its commerce and manufactures. Several lines of railroad meet here.

SCENE IN A FLORIDA SWAMP.

14. **FLORIDA** formerly belonged to Spain. The name means in Spanish "flowering" or "blooming." The southern part of the peninsula is of coral formation, and the Florida Keys are coral islands.

The word Keys comes from the Spanish word cayos (*ki′-oce*), which means "rocky islets" The Everglades cover the southern part of the peninsula. They are an immense lake of shallow water filled with thousands of islands.

15. *Towns.*—The towns are small. Key West, on an island of the same name, is the most southern town in the Union. It has a fine harbor, upon which our Government has built a strong fort to defend the entrance to the Gulf of Mexico.

The saving of vessels and cargoes which have been wrecked upon these dangerous Florida reefs is the principal occupation at Key West. This business is called *wrecking*. Tallahassee is the capital of Florida. Jacksonville is the largest city. St. Augustine is the oldest town in the United States.

BRANCH OF COTTON PLANT.

16. **ALABAMA.**—The mountains of the Appalachian System are little more than hills in the northern part of Alabama, and gradually sink to the level of the country.

17. *Towns.*—Mobile is the largest city, and is second only to New Orleans in the export of cotton.

The numerous streams which unite to form the Mobile River are navigable by steamers for hundreds of miles into the northern part of Georgia, Alabama and Mississippi, and bring to Mobile the cotton of those districts.

Montgomery is the capital. It is near the head of the Alabama River, in the midst of a rich cotton region, and is therefore an important town. The Alabama is navigable for large steamboats throughout its entire length.

18. **MISSISSIPPI** has no large cities. The cotton, which this state produces in such great quantities, is sent by river and rail to New Orleans, Mobile and Memphis.

19. *Towns.*—Vicksburg and Natchez, situated on the bluffs, are the largest towns. Natchez overlooks the immense cypress swamps of Louisiana.

Great quantities of cotton are received at these places from the interior, and sent down the river to New Orleans. Jackson is the capital. Aberdeen is at the head of steamboat navigation on the Tombigby.

20. **LOUISIANA** was first settled by the French and Spanish. Great numbers of the people are descendants of these settlers, and retain their language and customs.

21. A large part of Louisiana is inundated when the Mississippi and Red Rivers overflow their banks, and when the spring and autumn gales blow the waters of the Gulf on shore.

The coast for a great distance inland is raised but a few feet above the Gulf at low tide, and contains many shallow lakes, which are only expansions of the rivers in this flat surface. Lakes Borgne and Pontchartrain are really bays or sounds.

The Delta of the Mississippi is formed entirely of soil which the river has washed down from the upper part of its course. The Delta is a vast swamp nearly as large as Vermont and Massachusetts, and is covered with trees, only the tops of which can be seen during the floods.

Through this muddy soil the Mississippi finds its way to the Gulf of Mexico by one principal channel and many smaller streams called bayous (*bi′-oos*). The waters of the Gulf are discolored for a hundred miles by the immense quantity of muddy water which this great river discharges.

22. *Towns.*—New Orleans, the capital, is the largest city in the Southern States, and the greatest cotton port in the world.

23. **ARKANSAS.**—The north-eastern part of the state is an immense swamp, which extends into Missouri. These swamps, however, when drained, make the richest kind of soil.

On the banks of the Little Missouri is a mountain of alabaster, which is said to be of the finest quality, and as white as the driven snow.

24. *Towns.*—Little Rock, the capital, is the only town of any considerable size.

25. TENNESSEE.—The mountainous part of the state is called East Tennessee; the hill-country between the Cumberland Mountains and Tennessee River is Middle Tennessee; and the level land between that river and the Mississippi is called West Tennessee.

26. *Towns.*—Memphis, the principal town, situated upon one of the bluffs of the Mississippi, is the largest city between New Orleans and St. Louis.

Memphis is a town of great commercial importance. The largest ships of war can ascend the river to this place.

Nashville, the capital, is at the head of steamboat navigation on the Cumberland River. It is the principal city of Middle Tennessee, and Knoxville is the chief town in East Tennessee.

Questions.—*North and South Carolina.*—Which is highest—Mt. Washington or Mt. Mitchell? With what would you load a ship at Wilmington? At Charleston? Which of the two is a leading cotton-port?

Georgia.—What part of this state is high land? What part is low land? What are the exports of Savannah? Is it a manufacturing town? Where are the manufacturing towns? What advantages for commerce has Atlanta?

Florida.—What does the word "Florida" mean? The word "Cayos"? What little animal built the southern part of this peninsula? What timber is exported? What tropical fruits are raised?

Alabama.—What is exported from Mobile? Where does the cotton come from which is received at Mobile? Can large steamers go from Mobile to Montgomery?

Mississippi.—To what three towns is the cotton of Mississippi sent? To which of these would it probably be sent from Yazoo City? From Columbus?

Louisiana.—What rivers overflow their banks? When is the coast inundated? Why is the coast easily overflowed? To what city do you suppose most of the cotton of the Mississippi Valley is sent?

Arkansas.—What part of this state is high land? Low land? What are the principal productions?

Tennessee.—Where is East Tennessee? Middle Tennessee? West Tennessee? Is Tennessee a cotton State? Is tobacco an important production? What is the largest city? The largest town in Middle Tennessee? In East Tennessee?

QUESTIONS ON THE MAP OF THE SOUTHERN STATES.

Position and Outline.—Bound each State. Where is Cape Hatteras? Lookout? Fear? Canaveral? Sable? St. Blas? Which of these are upon islands? Name all the capes in their order, from the north.

Where is Albemarle Sound? Pamlico Sound? Tampa Bay? What bays on the north-west shore of Florida? What bay in Alabama? Name all the bays on the coast of Louisiana, including Lakes Borgne and Pontchartrain. Name all the bays and sounds of this section, in their order, from the north.

Where are the Bahama Islands? To what larger group do they belong? Where are the Florida Keys? Tortugas Islands? Cedar Keys? Chandeleur Islands? Name all the islands on the coast.

Surface.—What three parallel ranges of mountains in this section? Describe the Blue Ridge, stating in what direction it extends, what part of each state it crosses, and where it terminates. The Alleghany Mountains. The Cumberland. Where are the Boston Mountains? Mt. Mitchell and Clingmans Peak?

Lakes and Rivers.—The lakes and rivers belong to two systems:—the Atlantic and the Gulf Systems.

NOTE.—*In this section almost all the rivers east of the Mississippi River rise in the mountains or in the hilly country at their base. The boundary of the hilly country is marked as on the map of the Middle States.*

The *Atlantic System.*—Name the rivers which flow into Albemarle Sound. Into Pamlico Sound. Describe Cape Fear River. Into what does the Little Pedee flow? What is the Great Pedee called in the upper part of its course? Name the principal branches of the Santee. Describe the Savannah. The Ogeechee. What rivers form the Altamaha? Describe the St. Mary River. The St. Johns. Suwanee.

The *Gulf System.*—What lake north of the Everglades? What two rivers unite to form the Apalachicola? In what highlands do they rise? Into what bay does the Apalachicola flow?

Into what bay does the Mobile River flow? What two rivers unite to form it? What two form the Alabama? What outlet from Alabama River into Mobile Bay? Describe the Pascagoula River. The Pearl. Big Black. Yazoo.

What two rivers flow into the Ohio? What rivers flowing from Virginia unite to form the Tennessee? Between what mountain chains do they flow? Describe the Tennessee. The Cumberland. In what river and state are the Muscle Shoals?

Describe the Red River. (*See Map of the United States.*) The Washita. How does some of the water of the Red River reach the Gulf without flowing into the Mississippi? Describe the Arkansas. The White River. What branch does it receive? Describe the St. Francis. The Sabine. What bayou leaves the Mississippi at Donaldsonville?

Name all the rivers of this section which flow into the Atlantic Ocean. Into the Gulf of Mexico. Name the tributaries of the Mississippi in this section from the mouth. The tributaries of the Ohio.

Towns.—Describe the situations of the following towns, telling whether they are upon the coast or in the interior, upon what body of water, and in what part of the state:

North Carolina.—Weldon, Raleigh, Wilmington, Newbern.

South Carolina.—Columbia, Greenville, Georgetown, Charleston, Beaufort.

Georgia.—Augusta, Milledgeville, Macon, Columbus, Atlanta, Rome, Savannah.

Florida.—Jacksonville, St. Augustine, Key West, Tallahassee, Pensacola.

Alabama.—Montgomery, Selma, Florence, Mobile, Huntsville.

Mississippi.—Columbus, Aberdeen, Natchez, Vicksburg, Jackson.

Louisiana.—New Orleans, Donaldsonville, Baton Rouge, Shreveport.

Arkansas.—Little Rock, Napoleon, Helena.

Tennessee.—Memphis, Nashville, Chattanooga, Knoxville.

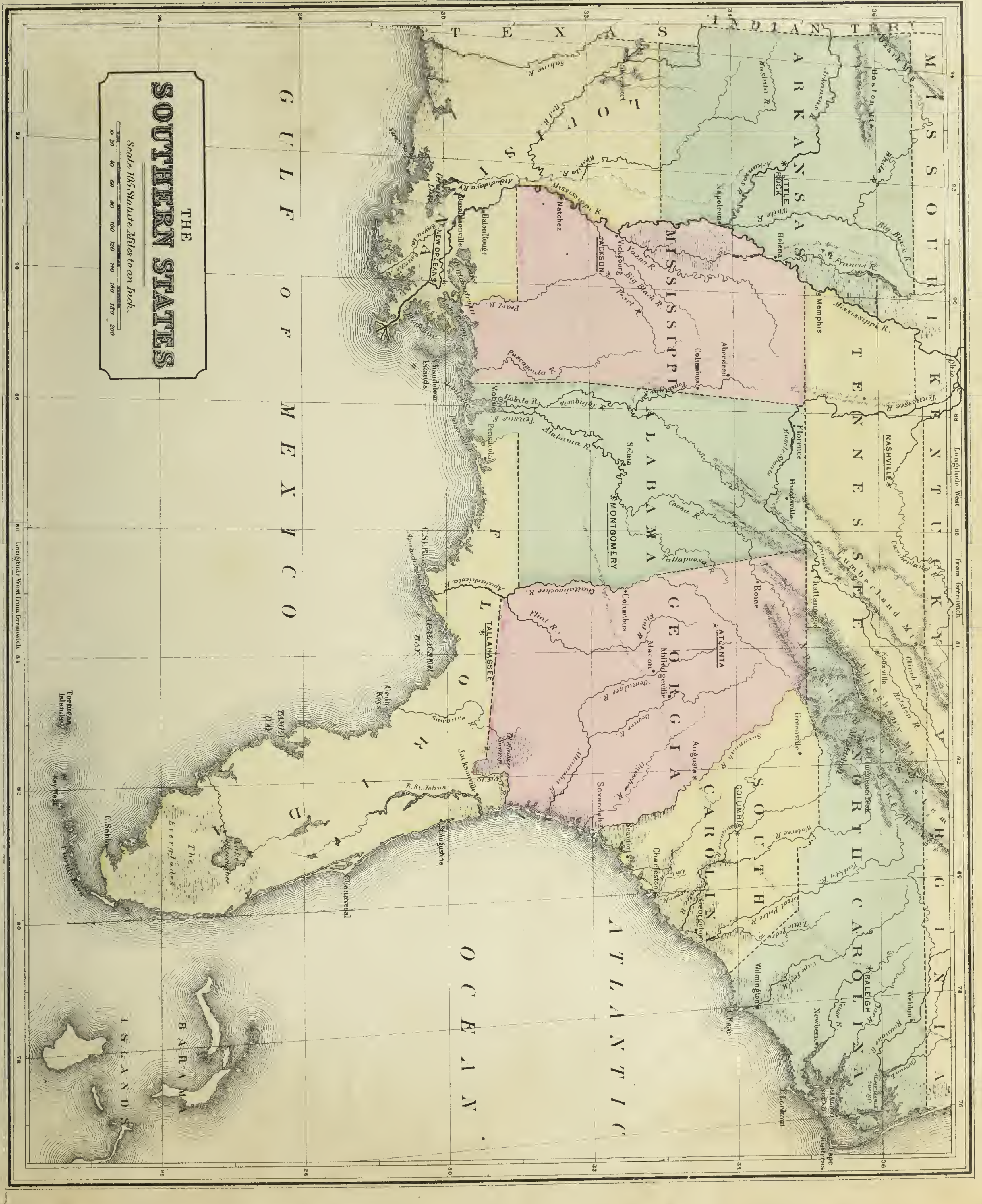
Questions on the Map and Text.

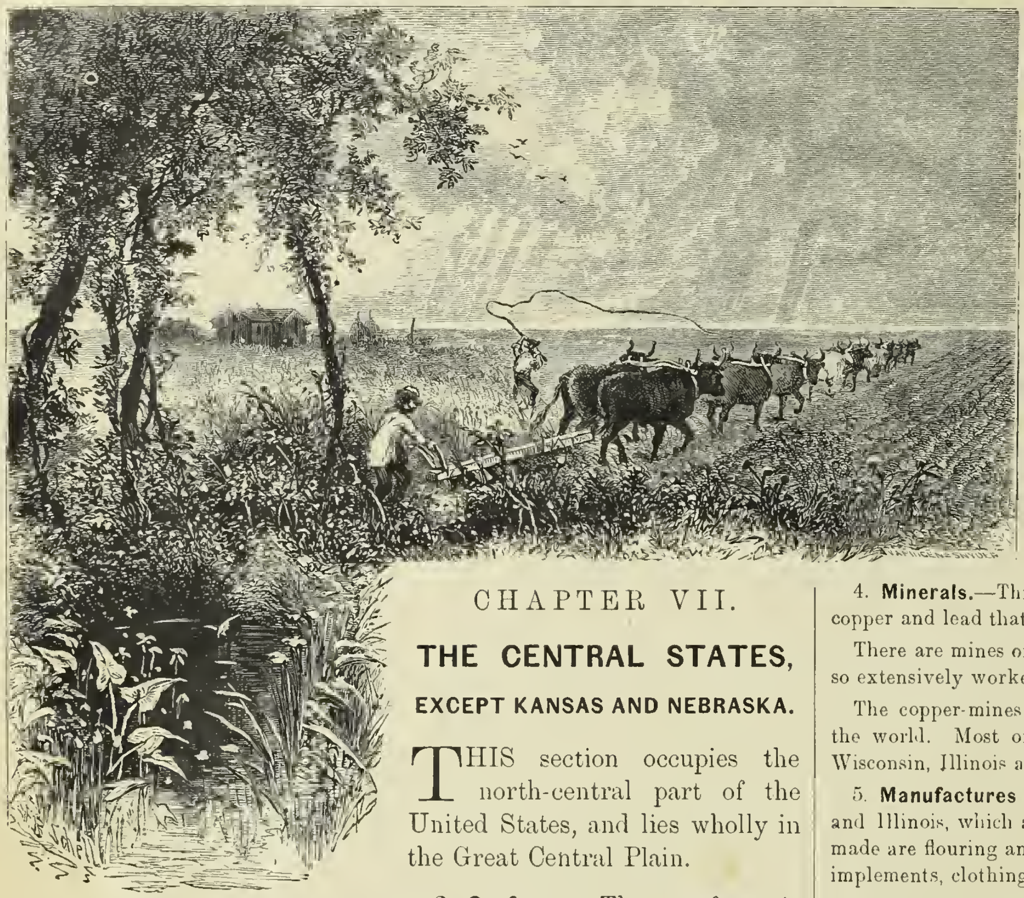
Which is most likely to be overflowed by the sea—the coast of Louisiana, or of Maine? By what river does Louisiana receive grain, meat and tobacco, from the Central States? How could a steamboat reach New Orleans from Nashville?

Name the towns of this section on the Mississippi, from its mouth. Name the towns on or near the coast, from the north. On the rivers which flow into the Atlantic. Into the Gulf of Mexico. Into the Mississippi. Into the Ohio.

Name all the towns given in the map of North Carolina. In South Carolina. Georgia. Florida. Alabama. Mississippi. Louisiana. Arkansas. Tennessee.

Which of these states comes nearest to the Torrid Zone? Which, therefore, is the warmest? Which state has the coolest winters—Tennessee or Louisiana? Which is the coolest—the high land or the low land? East Tennessee or West Tennessee?


THE
SOUTHERN STATES
Scale 105 Statute Miles to an Inch.
GULF OF MEXICO
ATLANTIC OCEAN
TEXAS
INDIAN TERY.
MISSOURI
KENTUCKY
VIRGINIA
ARKANSAS
LOUISIANA
MISSISSIPPI
ALABAMA
GEORGIA
FLORIDA
TENNESSEE
NORTH CAROLINA
SOUTH CAROLINA
LITTLE ROCK
JACKSON
NEW ORLEANS
MONTGOMERY
TALLAHASSEE
ATLANTA
NASHVILLE
COLUMBIA
RALEIGH
BAHAMA ISLANDS
Longitude West from Greenwich
Memphis
Natchez
Vicksburg
Baton Rouge
Mobile
Pensacola
Savannah
Charleston
Augusta
Macon
Milledgeville
Columbus
Chattanooga
Knoxville
Wilmington
Jacksonville
St. Augustine
Key West
Mississippi R.
Tennessee R.
Cumberland R.
Alabama R.
Chattahoochee R.
Apalachicola R.
Cumberland Mts.
Allegheny Mts.
Tampa Bay
The Everglades
C. Hatteras
C. Lookout
C. Fear
C. Canaveral
C. Sable
Florida Keys
Tortugas Islands



CHAPTER VII.

THE CENTRAL STATES,

EXCEPT KANSAS AND NEBRASKA.

THIS section occupies the north-central part of the United States, and lies wholly in the Great Central Plain.

2. Surface. — The surface is generally level or slightly rolling, and rises very gradually from the Mississippi River to the Rocky and Appalachian Mountains.

3. Much of the country north of the Ohio and Missouri Rivers consists of vast treeless plains, called Prairies. The prairies have a very rich soil, and are covered with a heavy growth of grass.

In summer they are decked with a great variety of beautiful flowers. The banks of the streams are clothed with woods, and young trees spring up wherever the grass is protected from the fires which often burn over a great extent of this prairie country.

Some of the prairies are perfectly level; others have an undulating or rolling surface, like the swell of the ocean.

4. Lakes and Rivers.—The principal rivers are the Mississippi and its branches. They are separated from the Basin of the St. Lawrence by the high lands of Wisconsin and Minnesota, and by a ridge of low hills near the shores of the Great Lakes.

The great swamp of Arkansas extends into Missouri for a hundred miles along the Mississippi River. North of this swamp the banks of the Mississippi and its branches, throughout this section, are high and bold, often rising into bluffs two or three hundred feet high.

5. Lake Superior is the largest fresh-water lake in the world. Its waters come from more than two hundred streams, most of which are rushing torrents flowing over rocks and precipices.

The navigation of the lake is often very dangerous, for violent gales are frequent, and the waves beat furiously upon the high and rocky shores.

6. Climate.—The climate of Kentucky and Missouri is somewhat like that of Tennessee and Arkansas. Farther north, and especially in the extreme north-west, the winters are very severe.

7. Productions and Occupations.—The rich soil and abundant grass of the Central States naturally fit them for agriculture and grazing. Immense fields of wheat and corn, and great herds of cattle, sheep and swine, form the chief wealth of the people.

1. **Agriculture.**—Grain is the leading agricultural product. Three-fourths of the corn and wheat raised in our country are produced in these states.

The other important crops are hay and potatoes; hemp in the southern districts and tobacco in Kentucky, Ohio and Missouri.

2. **Grazing.**—Live-stock, salt beef and pork, hams and wool are the principal grazing-products of these states.

3. **Forests.**—Kentucky and Ohio are well wooded; but the great timber region of the Central States is in Michigan, Wisconsin and Minnesota.

4. **Minerals.**—This section contains the most extensive deposits of coal, iron, copper and lead that have been found in America.

There are mines of iron and coal in nearly all the Central States, but they are not so extensively worked as those of Pennsylvania.

The copper-mines of Michigan and the iron-mines of Missouri are the richest in the world. Most of the lead which we find in the United States is obtained in Wisconsin, Illinois and Iowa, near the point where these three states meet.

5. **Manufactures** are fast increasing in these states, especially in Ohio, Missouri, and Illinois, which already hold a high rank in this industry. The leading articles made are flouring and grist-mill products, packed pork, lumber, liquors, agricultural implements, clothing, carriages, wagons and iron.

6. The **Commerce** is almost entirely domestic, and is carried on principally with the cities of New England and the Middle States. The exports are grain, grazing products, copper, iron and lead.

The Mississippi and its many branches enable steamboats to reach the interior of almost every state, while the Great Lakes lie along the northern shores like inland seas, and are alive with vessels carrying goods and passengers east and west.

Besides these water-roads, this section is covered with a network of railroads, which are especially necessary in winter, when the lakes and rivers are obstructed by ice.

8. Inhabitants.—This section is peopled by settlers from New England and the Middle States, and from various parts of Europe. Such great numbers of immigrants are constantly coming hither that the population increases faster than in any other part of the Union.

Questions.—What is the general character of the surface? Where are the prairies? What is a prairie? Is a prairie adapted to agriculture? To grazing? Is a hilly country without trees a prairie-land?

Are the banks of the Mississippi and its branches in the Southern states generally low, or high? (*See Page* 32.) Are they generally high, or low, in the Central States? How are the rivers which empty into the Great Lakes separated from the Mississippi and its branches?

What Southern states have a climate similar to that of Kentucky? What is the coldest part of this section? Which has the coldest winter—Minnesota or Missouri?

Why is this section devoted to agriculture and grazing? Name the principal agricultural productions. The grazing products. Where are the forests?

Where are the richest mines of copper? Of iron? Name the principal vegetable productions of the Central States. The animal productions. The minerals. What is said of the manufactures? Name some of the articles made.

With what cities do the Central States chiefly trade? What articles are exported to these cities? From what state is the copper exported? The iron? The lead? Name the water-roads. The other roads. Why do the cities grow so fast? From what countries do the immigrants come?

9. **KENTUCKY**, like Tennessee, has a mountain-district in the east, a hilly country in the centre, and a level tract west of the Tennessee River.

"Kentucky" means "dark and bloody ground." The name tells the story of the bloody conflicts the early settlers fought with the Indians in the dark forests which then covered the state.

This state contains one of the most remarkable caverns in the world. It is called the Mammoth Cave, and has been explored ten miles without finding the end. A river flows through it, in which are found white, eyeless fishes.

10. *Towns.*—Louisville is the largest city, except Cincinnati, on the Ohio River. Frankfort is the capital.

11. **OHIO** ranks among the great manufacturing states of our country, and is also very extensively engaged in farming and grazing. This state is generally level and well wooded.

A light wine made from the Catawba grape is produced in the vineyards around Cincinnati, and is exported to all parts of the country.

12. *Towns.*—Cincinnati is the commercial centre of the Ohio Valley. It is noted for the immense quantities of pork which are salted and packed for exportation. Columbus is the capital.

Cleveland is one of the five principal lake-ports. The others are Chicago, Buffalo, Detroit and Milwaukee.

Cleveland stands on a high plain upon the shore of Lake Erie, and is beautifully built, with broad, shaded streets and large parks. It is called one of the handsomest cities in the United States.

13. **INDIANA** is generally level or undulating, though some districts are hilly—especially along the banks of the Ohio and its branches. There are broad prairies and extensive woodlands in various parts of the state.

Indiana raises an immense amount of grain and live stock, and is one of the leading states of this section, in agriculture, grazing and mining.

14. *Towns.*—Indianapolis, the capital and largest city, is a great railroad centre. Next in importance are Evansville, Fort Wayne and Terre Haute (*ter-reh-hote'*).

15. **ILLINOIS** is a prairie state, chiefly occupied with farming and grazing. More corn is raised here than in any other state in the Union. It is also largely engaged in manufacturing.

16. *Towns.*—Chicago is the commercial centre of the North-west. Grain and live-stock are sent here from all the country around, and lumber from the forests of Michigan and Wisconsin.

It is the greatest grain-market in the world, and exports more lumber, live-stock, packed beef and pork than any other city in the Union.

A canal has been cut from the Chicago River to the Illinois, and the water now actually flows from Lake Michigan up the Chicago and down the Illinois River into the Mississippi.

Quincy is a beautiful city, situated on a limestone bluff 125 feet above the Mississippi River.

Peoria is the most populous town on the Illinois River, and has a great trade with St. Louis, Chicago and the Eastern cities.

Springfield is the capital of Illinois, and was the home of Abraham Lincoln.

17. **MISSOURI.**—The Missouri River flows through this state, and discharges its muddy waters into the Mississippi, which above that point is comparatively clear. "Missouri" means "muddy water."

North of the Missouri and Osage Rivers the country is a rolling prairie. South of these rivers the surface is generally hilly.

18. Farming, grazing and mining are the chief employments, though the manufactures are being rapidly developed.

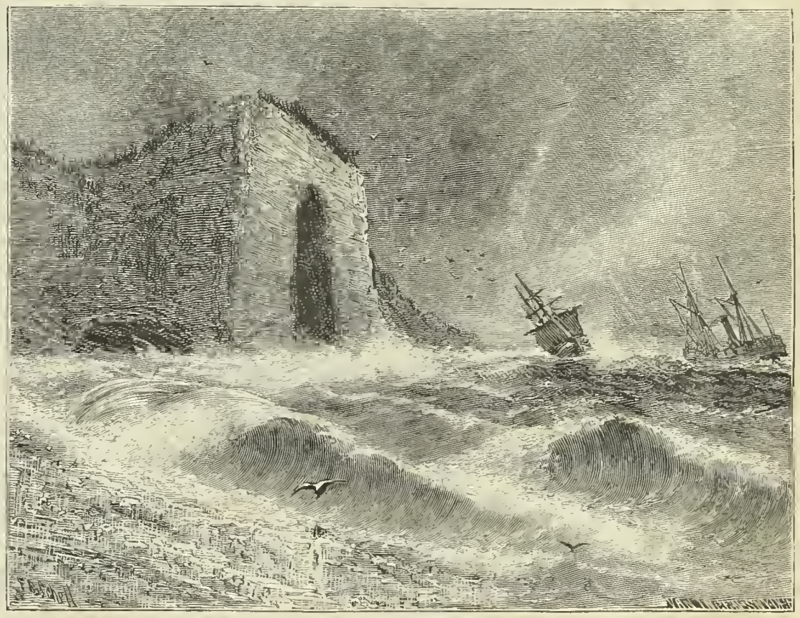
Pilot Knob and Iron Mountain are masses of the richest iron ore. Valuable lead mines and immense beds of coal are found.

19. *Towns.*—St. Louis was founded by the French more than a hundred years ago, when the Mississippi Valley belonged to France. It is the largest city in the Great Valley, and stands almost exactly in its centre.

St. Louis is famous for its manufacture of flour, and has an immense trade with all parts of the United States. Jefferson City is the capital of the state.

20. **IOWA** consists almost entirely of rolling prairies. The wealth of this state is in its grain-fields, pastures and mines.

21. *Towns.*—Dubuque (*du-buke'*) and Davenport are the largest towns. Dubuque is the dépôt for the lead trade of Iowa. Des Moines (*de-moin'*) is the capital.



THE PICTURED ROCKS.

22. **MICHIGAN** is composed of two peninsulas. The northern peninsula has a rugged surface and sterile soil, but is rich in mines of iron and copper, and is covered with valuable timber. The southern peninsula has heavy pine forests in the north, and hills and fertile prairies in the south.

On the south shore of Lake Superior are the famous "Pictured Rocks," which are sandstone cliffs of various colors, worn by the winds and waves into the form of ruined temples, castles, etc. These rocks extend for nearly twelve miles along the lake, and are about 300 feet high. Here and there cascades shoot over the precipices so far that boats can sometimes sail under them.

23. *Towns.*—Detroit is one of the principal lake-ports. Grand Rapids is the second city in the state, and Lansing is the capital.

24. **Wisconsin** consists, in general, of an elevated rolling plain, crossed by ridges of wooded hills, from which the rivers flow towards the Great Lakes and the Mississippi.

Great numbers of beautiful lakes lie among the hills, and give rise to swift, sparkling streams. They flow through narrow gorges, between high and rocky bluffs, and present many grand and picturesque views. Nearly all the rivers of this state abound with rapids and falls.

25. *Towns.*—Milwaukee, the principal city, is second only to Chicago as a grain-market. Madison is the capital.

26. **Minnesota** is the highest land between Hudson Bay and the Gulf of Mexico. Like Wisconsin, the surface is an undulating plateau, with ranges of forest hills from which the rivers flow in various directions.

27. *Towns.*—The towns are in the south; for the northern part is a wilderness clothed with forests. St. Paul is the capital and principal city.

Questions.—*Kentucky.*—In what respect does Kentucky resemble Tennessee? Is it a prairie state? Why is the state called "the dark and bloody ground"?

Ohio.—Is Ohio a prairie state? Why? What are the three principal employments? Which one of the five principal lake-ports is in this state? Why is Cincinnati an important city? What are its exports?

Indiana and Illinois.—Describe the surface of these states. What are the productions? The three principal exports of Chicago? How does the water from Lake Michigan flow into the Mississippi River? Why is Peoria important?

Missouri.—What part of Missouri is prairie-land? What part is hilly? What minerals are abundant in this state? Name the products. When did the French settle at St. Louis? What makes this city so important?

Iowa.—What is the surface? Name the productions. Where is the lead sent?

Michigan.—How does the northern peninsula differ from the southern, in surface? In soil? Productions? What do you suppose are the leading exports of Detroit?

Wisconsin and Minnesota.—What is the surface? Where are the forests? Are these states composed entirely of prairie land? Why do the rivers flow so swiftly? Why are there so many rapids and falls?

QUESTIONS ON THE MAP OF THE CENTRAL STATES.

Position and Outline.—What country on the north of this section? Bound each State. Name the three most northern. Most western. The two most southern.

Surface.—Where are the Cumberland Mountains? The hills, called the Ozark Mountains? Iron Mountain? Pilot Knob?

Lakes and Rivers.—The lakes and rivers belong to three systems—that of the Gulf of Mexico, the St. Lawrence and Hudson Bay.

Gulf of Mexico System.—Where is Itasca Lake? Describe the Mississippi, from its source in Itasca Lake—naming the states on each side. Name the western tributaries of the upper Mississippi—that is, those north of the Missouri River. Name the eastern branches.

What states of this section are partly bounded by the Missouri River? Which one does it cross? Into what does the Osage River flow? What rivers of Arkansas rise in Missouri? Where is the marshy land of Missouri?

What states on the north bank of the Ohio? On the south bank? What two rivers in Pennsylvania unite to form the Ohio? (*See Map of the Middle Atlantic States.*) Describe the Ohio. Name its northern branches, from its source. Its southern. Which are in Ohio? What river between Indiana and Illinois? Between Kentucky and West Virginia?

St. Lawrence System.—Through what river and over what rapids does the water of Lake Superior flow into Lake Huron? Through what canal would a steamboat pass between these two lakes? What river flows into the western end of Lake Superior? What large island in this lake? What small islands in the south-western part? In what state are the copper and iron regions of Lake Superior? The "Pictured Rocks"? What bay on the south shore?

By what strait does Lake Michigan flow into Lake Huron? What bay on the western shore of Lake Michigan? What lake and rivers flow into this bay? What bay on the eastern shore of Lake Michigan? What river flows into the eastern shore of this lake? In what direction does Lake Michigan flow?

What two great lakes flow into Lake Huron? What bay on the eastern side of this lake? What islands partly form the boundary of this bay? What bay on the western shore of Lake Huron? What river flows into it? By what two rivers and lake does the water of Lake Huron flow into Lake Erie? Into what lake does the Maumee River flow? In what direction does the water of Lake Erie flow?

Hudson Bay System.—What river between Dakota and Minnesota? In what direction does it flow? Into what lake in British America does it flow? (*See Map of North America.*) By what rivers and lakes could you travel in a canoe from Lake Superior to the Lake of the Woods? Of what state does this chain of rivers and lakes form the northern boundary? Into what lake does the Lake of the Woods flow? From what lake does Pigeon River flow? Into what river do the waters of Rainy Lake flow?

In what great river-valley does most of this section lie? To what basin does the land bordering on the great lakes belong? What state is included entirely in the Basin of the St. Lawrence? The Ohio Valley is a part of what greater valley?

Towns.—Describe the situation of the following towns, telling whether they are upon the coast or in the interior, upon what body of water, and in what part of the state:

Kentucky.—Frankfort, Louisville, Covington, Newport, Lexington.

Ohio.—Columbus, Cincinnati, Cleveland, Toledo, Dayton, Sandusky, Springfield, Hamilton, Portsmouth, Zanesville, Oberlin.

Indiana.—Indianapolis, Evansville, Fort Wayne, Terre Haute, New Albany, Lafayette, Madison, Richmond, Logansport, La Porte, South Bend.

Illinois.—Springfield, Chicago, Quincy, Peoria, Bloomington, Aurora, Rockford, Galesburg, Cairo, Galena, Alton, Jacksonville, Belleville, Centralia.

Missouri.—Jefferson City, St. Louis, Kansas City, St. Joseph, Hannibal.

Iowa.—Des Moines, Davenport, Dubuque, Burlington, Keokuk, Council Bluffs, Iowa City, Muscatine, Ottumwa, Knoxville, Fort Dodge, Sioux City.

Michigan.—Lansing, Detroit, Grand Rapids, Jackson, East Saginaw, Kalamazoo, Ann Arbor.

Wisconsin.—Madison, Milwaukee, Fond du Lac, Oshkosh, Prairie du Chien, Racine, La Crosse, Janesville.

Minnesota.—St. Paul, Minneapolis, Duluth, Winona, Mankato, Hastings, Faribault.

Questions on the Map and Text.

Name all the towns on the Great Lakes. On the Ohio. On its branches. On the Missouri. On the Mississippi. Name the four principal lake-ports in this section.

Through what waters would a steamboat carry a cargo of copper, from Lake Superior to Buffalo? What would be likely to obstruct the passage in winter? With what kind of goods would a steamboat be loaded at St. Louis for New Orleans?

How could a vessel take a cargo of grain from Chicago to Europe? Across what states would lead and grain be sent from Chicago to New York in winter? By what route in summer? In what rivers would you sail in going by water from Council Bluffs to Pittsburgh, Pennsylvania? Is Chicago in the Valley of the Mississippi, or in the Basin of the St. Lawrence?

THE
CENTRAL STATES
Scale 100 Statute Miles to an Inch.
10 20 30 40 50 100 150 200
DOMINION OF CANADA
MANITOBA
DAKOTA
MINNESOTA
WISCONSIN
MICHIGAN
IOWA
ILLINOIS
INDIANA
OHIO
MISSOURI
KENTUCKY
NEBRASKA
KANSAS
INDIAN TERRITORY
ARKANSAS
TENNESSEE
NORTH CAROLINA
WEST VIRGINIA
PENNSYLVANIA
LAKE SUPERIOR
LAKE MICHIGAN
LAKE HURON
LAKE ERIE
ONTARIO
GEORGIAN BAY
Rainy Lake
Itasca Lake
Duluth
Minneapolis
ST. PAUL
Falls of St. Anthony
Hastings
Faribault
Mankato
Winona
La Crosse
MADISON
Milwaukee
Racine
Janesville
Oshkosh
L. Winnebago
Fond du Lac
Prairie du Chien
Copper Region
Iron Region
Pine Forests
Lead Region
Grand Traverse Bay
Saginaw Bay
East Saginaw
Grand Rapids
LANSING
Kalamazoo
Jackson
Ann Arbor
Detroit
Lake St. Clair
Toledo
Sandusky
Cleveland
Oberlin
Sioux City
Fort Dodge
Dubuque
Galena
Rockford
Chicago
Aurora
Iowa City
Davenport
Muscatine
DES MOINES
Council Bluffs
Knoxville
Ottumwa
Burlington
Keokuk
Galesburg
Peoria
Bloomington
South Bend
La Porte
Fort Wayne
Logansport
La Fayette
INDIANAPOLIS
Richmond
Terre Haute
Springfield
Dayton
COLUMBUS
Zanesville
Hamilton
Cincinnati
Newport
Covington
Madison
Portsmouth
St. Joseph
Kansas City
Quincy
Hannibal
SPRINGFIELD
Jacksonville
Alton
St. Louis
Belleville
JEFFERSON CITY
Centralia
New Albany
Louisville
FRANKFORT
Lexington
Evansville
Iron Mt.
Pilot Knob
Iron Mines
Cairo
Great Swamp
Mammoth Cave
Ozark Mts.
Cumberland Mts.
Missouri R.
Mississippi R.
Illinois R.
Wabash R.
Ohio R.
Wisconsin R.
Iowa R.
Des Moines R.
Osage R.
White R.
Arkansas R.
Tennessee R.
Cumberland R.
Green R.
Kentucky R.
Salt R.
Licking R.
Big Sandy R.
Maumee R.
Miami R.
Scioto R.
Muskingum R.
Saginaw R.
Grand R.
Wolf R.
St. Croix R.
St. Louis R.
Minnesota R.
Sioux R.
Red River of the North
Pigeon R.
Clinch R.
Holston R.
St. Francis R.
Big Black R.
St. Joseph's Id.
Manitoulin Ids.
Mackinac
River Rapids & Canal of Saut de St. Marie
96 94 92 90 88 86 84 82 80
48 46 44 42 38 36

CHAPTER VIII.

THE PACIFIC STATES AND TERRITORIES,

WITH A PART OF THE CENTRAL AND SOUTHERN STATES.

NEBRASKA, Kansas and Dakota Territory are included within the section called Central States. Texas and Indian Territory are classed with the Southern States. All the other States and Territories described in this chapter are wholly or partly on the Pacific Slope, and are therefore called the Pacific States and Territories.

2. This section consists of three divisions: a low *Coast Region* on the west, a great *Plateau* in the centre, and a *Prairie Country* on the east.

THE COAST REGION.

3. Surface.—The coast region includes the valley which extends westward from the Sierra Nevada and Cascade Range to the low coast mountains skirting the Pacific shore.

4. Lakes and Rivers.—This beautiful valley is watered by the Willamette, the Sacramento and the San Joaquin (*hwa-keen'*).

The Columbia River, which flows across this valley, is navigable for ocean vessels as far as the Cascade Range, and above that point for smaller vessels. It is a broad, deep and noble river, and is the greatest of those which water the Pacific Slope.

5. The **Climate** is very mild, except in Alaska,—the winters being much warmer and the summers generally cooler than those of the Atlantic States.

In winter there are frequent showers of rain. In summer there is usually no rain at all in California, and but little in Oregon and Washington.

6. The **Vegetation** is very luxuriant. Wheat, oats, barley and fruit are raised in great abundance, and there is the finest pasturage for cattle and sheep. The Coast Mountains and the Sierra Nevada are covered with forests of the largest pines and cedars in the world.

These great trees are from fifteen to thirty feet thick, and two or three hundred feet high. Some have even been found to be forty feet in diameter, and four hundred feet in height.

7. Minerals.—The mineral wealth of this region is very great. The gold mines of California are famous throughout the world. Quicksilver and many other valuable minerals abound. Rich beds of coal are found in Washington Territory, near Puget Sound.

8. Inhabitants.—This section is still very thinly settled, and most of the white inhabitants have come, quite recently, from the older states or from Europe.

Within a few years the Chinese have come to the Pacific coast and the highlands, attracted by the higher wages which they receive for their labor.

Alaska, nearly all of *California* and the western part of *Oregon* and *Washington* are included in the coast region.

Questions.—Of what three divisions does this section consist? The coast region lies west of what mountains? What ocean washes the shore? What rivers drain the valley? What mountains enclose it? What great river crosses it? To what point is this river navigable from the Pacific?

How does the climate differ from that of the Atlantic States? Which has the warmest winters,—Washington Territory or New Brunswick? Is there as much snow in Oregon as in Maine? When is the dry season in California? The greatest amount of rain in Oregon?

What grain is cultivated? What animals raised? Describe the great trees. Where do they grow? Has this section been so long settled as New England? Where have the people chiefly come from? What Asiatics are there in the country? Tell what you know about them. What states and territories belong to the coast region?

SCENERY IN CALIFORNIA.

9. CALIFORNIA produces great quantities of wheat, barley, wine, wool, gold, quicksilver and coal. Northern fruits grow here to a very large size; and in the southern half of the State semi-tropical plants are cultivated with success.

Among the latter are the orange, the olive, the almond, and the mulberry tree (whose leaves are the food of the silk-worm).

In the winter and spring, the country is green and beautiful. But in summer the earth is parched and dusty, and the landscape brown and unattractive.

The gold district is amongst the hills at the western base of the Sierra Nevada, and is the richest in the world. The quicksilver mines at New Almaden are the most productive of any that are now worked.

The manufactures of California are rapidly increasing in extent and importance, and already exceed in value the mineral productions. Flour, woolen goods, lumber, machinery, boots and shoes, are the leading articles.

10. California contains a great deal of wonderful natural scenery. One of the most remarkable places in the state is the Yosemite (*yo-sem'-i-ty*) Valley, which is formed by a narrow cleft in the Sierr Nevada, and drained by the Merced River.

The walls rise almost perpendicularly to the height of 4500 feet, and are crowned with rocky pinnacles, domes and towers. Many beautiful cascades fall over these tremendous precipices to the green and flowery level at the bottom of the valley.

11. *Towns.*—San Francisco is the largest city on the Pacific coast of the Western Continent, and has the best harbor. The exports consist of the various animal, vegetable and mineral productions.

San Francisco is connected by the Pacific Railroad with the cities of the Mississippi Valley and Atlantic states. Its commerce with the Atlantic ports is also carried on by the Panama Railroad and connecting steamships, and by vessels sailing around Cape Horn. It has an extensive and growing foreign commerce by means of numerous steamship lines to Australia, China, Japan and other countries.

Sacramento is the capital. Oakland, San José and Stockton are important towns.

12. WASHINGTON TERRITORY and **OREGON.**—The country west of the Cascade Range is exceedingly moist and fertile, and for the most part heavily timbered. East of these mountains lie the broad plains of the Columbia. They are a part of the Great Plateau, and are dry, sterile, and adapted only to stock-raising.

Wheat, coal, and the forests of gigantic trees are the chief sources of wealth. Timber, for the masts of vessels, is sent even to Europe and Asia. Probably no part of the world contains a greater abundance of fish than Puget Sound.

13. *Towns.*—Portland is the principal port of Oregon, and Salem is the capital. Olympia is the chief town and capital of Washington Territory.

The Willamette River is navigable for large ocean vessels to Portland, fifteen miles from its mouth.

14. ALASKA is a very cold country, and is valuable only for its furs and fisheries. Most of the inhabitants are Indians.

Sitka is the principal settlement and the seat of government.

Questions.—*California.*—Name the vegetable productions. The animal. The mineral. Those which are used for food or drink. For clothing. What river flows through a desert? Into what does the Merced River flow? What makes the scenery of the Yosemite Valley so grand and beautiful?

Name the exports which belong to the animal kingdom. The vegetable. The mineral. How could you travel overland from San Francisco to St. Louis? How by land and sea to New York? How entirely by sea to New York?

Washington and Oregon.—What parts are high land? Low land? Fertile? Barren? In what direction are Washington and Oregon from Minnesota? (*See Map of the United States.*) From New England? Why are the winters colder than those of California?

Alaska is opposite to what countries on the Atlantic coast of North America? (*See Map of North America.*) Are the winters in Alaska colder or warmer than those of Greenland and British America?

THE PLATEAU.

15. Surface.—The Plateau is the broadest part of the great Western Plateau of North America. It is 700 miles wide, and from 2000 to 9000 feet high.

The highest parts of the Plateau are between the Rocky and Wahsatch Mountains, and are crossed by the Colorado and the Green River. The lowest portions are called the Plains of the Columbia.

16. The Sierra Nevada and Rocky Mountains are the loftiest mountains in North America. Many of their summits are 15,000 feet high, and are covered with perpetual snow.

THE BUTTE "EL MORO."

Among the most singular features of the table-land and coast region are the Buttes (*butes*), which are single peaks rising abruptly from the plain to the height of 1000 or even 2500 feet.

17. East of the Plateau the land descends from the height of about 5000 feet (at the base of the mountains) to the Prairies. Most of this eastern slope descends so gradually, and seems so nearly level, that it is called the Great Plains.

18. Lakes and Rivers.—Most of the rivers in the Pacific States and Territories rise in the Rocky Mountains, and their waters finally reach the Pacific Ocean or the Gulf of Mexico.

The Columbia, the Colorado, and many other rivers in the mountain region flow for long distances through steep and narrow chasms called cañons (*can-yons*). In many places the walls of these cañons rise almost perpendicularly to the height of hundreds, and even thousands of feet.

19. The Missouri is the largest river in this section. It is navigable for small steamboats to the Great Falls, a distance of 3000 miles from the Gulf of Mexico by the way of the Mississippi River. This is the longest uninterrupted river navigation in the world.

Yellowstone River, the principal tributary of the upper Missouri, rises in Yellowstone Lake, which is 7800 feet above the level of the sea. Near this lake are the celebrated falls and cañon of the Yellowstone, and thousands of hot springs and mud volcanoes. A few miles to the north-west are the most wonderful geysers in the world, one of which at regular intervals of sixty-five minutes spouts a column of water six feet in diameter to a height of 75 or 150 feet.

20. The rivers of the Great Interior Basin have no outlet to the sea, and most of them flow into salt lakes. This basin probably belonged, at some former time, to the bed of the ocean.

Great Salt Lake is seventy-five miles long. Its waters are so salt that no fish can live in it, and a man cannot sink beneath its surface.

A FIGHT BETWEEN INDIANS AND UNITED STATES TROOPS.

21. Climate and Vegetation.—The Western Plateau is the highest, driest and least fertile part of the United States.

The moisture which is brought by the winds from the Pacific Ocean is chilled by the snowy tops of the Sierras, and falls upon their slopes in the form of snow or rain. As the winds lose most of their moisture in crossing these mountains, there is but little left for the plateau, and that principally falls as snow in winter during the rainy season of the coast region. Owing to the warm Pacific winds the winters are milder than those of the states further east in the same latitude.

22. A large part of the Plateau is almost a desert. But the mountain sides are covered with forests, the river banks are fringed with trees, and in the valleys and near the rivers there are fertile tracts affording good pasturage for cattle.

The highlands east of the Rocky Mountains (including the Great Plains) are dry and sterile, like the Great Plateau.

On the hot deserts and lava rocks of the south grows the cactus in great variety of forms. Some species are shaped like trees, and are twenty or thirty feet high.

In Colorado there are four beautiful valleys, enclosed by ranges of mountains, and called the North Park, the Middle Park, the South Park and the San Luis Park.

The Great Plains produce a short fine grass, which is called "buffalo grass," because the buffaloes feed upon it. This grass dries into hay without being mowed, and herds of cattle graze upon it all winter.

23. The **Mines** are of immense value, and furnish the chief sources of wealth. Gold and silver abound in nearly all these states and territories. Borax and sulphur are found in Nevada, copper in Arizona, and coal in Wyoming.

24. Animals.—The puma (or panther) is sometimes seen in the forests. The grizzly bear, the largest and fiercest of the bear tribe, is found among the mountains. Great numbers of buffaloes, wolves and deer roam over the Great Plains.

The prairie dog is a singular little animal, somewhat resembling a woodchuck, but having the bark of a small dog. He lives in a hole which he digs in the ground, throwing up the earth in a small mound, and sharing his habitation with an owl and a rattlesnake. Prairie dogs live together in great numbers on the Plains, and their settlements—called dog towns—sometimes cover a great extent of country.

25. Inhabitants.—This section is still very thinly settled, and most of the white inhabitants have come, within a few years, from the older states or from Europe. Most of the towns are small, and are generally situated in the mining districts.

Since the building of the Pacific Railroad, however, the population has rapidly increased, especially along the line of the track. And this is true of nearly all the states and territories described in this chapter.

In Arizona and New Mexico the population is composed chiefly of Mexicans and half-civilized Indians. These Indians are friendly to the whites. They raise cotton, wheat, and cattle, weave their own garments, and build stone houses one or two stories high.

These territories contain many relics of an ancient Indian people, who lived together in immense stone houses four or five stories high, with five or six hundred rooms.

Utah was settled by Mormons, most of whom are from England and other parts of Europe. The Mormons are a peculiar religious sect, who came to this rocky wilderness to live according to their own laws. They are industrious, and raise fine crops of wheat and herds of cattle in the mountain valleys and on the river banks.

26. Tribes of Indians roam over portions of the table-lands and great plains, and in some regions have been intensely hostile to the whites, interfering very much with the settlement of the country.

The Apaches and Camanches at the south, and the Sioux at the north, are among the most warlike and formidable of these nomadic nations.

Questions.—What is the greatest width of the plateau? How high are the Green River and Colorado portions? The plains of the Columbia? Which are the highest —the Appalachian System or the Rocky Mountains and Sierra Nevada?

What are the buttes? How high is the land at the eastern base of the Rocky Mountains? Which way does it slope? Why is this slope called the Great Plains?

Through what sort of channels do many of the rivers flow? Describe the cañons. How would you sail from the Great Falls to the Gulf of Mexico? Near what lake are the Geysers? Describe the most remarkable one. What is there remarkable about the Interior Basin? About Great Salt Lake?

Why are the table-lands so dry and barren? What makes the winters milder than in states farther east? Where are the trees? The pastures? What are the climate and soil of the Great Plains? Upon what do the cattle feed there?

Name the most important minerals. Where are they found? What animals are found in the forests? On the mountains? On the plains? Where do the prairie dogs live?

Where are the towns in this section? Why are they not so large as those of the older states? Describe the half-civilized Indians of Arizona. Who are the Mormons? Where do most of them come from? Where are their settlements? What danger is incurred by the settlers on the table-lands and the Great Plains?

27. *Idaho, Montana, Wyoming, Nevada, Utah, Colorado, New Mexico* and *Arizona* are included in the Western Plateau and the highlands east of it. The greater part of this vast region lies between the two principal ranges of mountains.

These states and territories are still imperfectly known, but each new explorer brings wonderful stories of this strange land—of its geysers, hot springs, and mud volcanoes; of its rugged mountains and deep cañons: its beautiful valleys and dreary deserts. No other part of our country is so full of wild and singular interest.

In the north-western part of Wyoming Territory, around Yellowstone Lake, a tract of nearly 3600 square miles, containing many of the most peculiar and interesting of these natural features, has been set apart by Congress as a National Park.

28. Idaho, Montana and **Wyoming** form together nearly a square, crossed by the Rocky Mountain Range and many of its branches. The whole surface is exceedingly rugged and broken.

29. *Towns.*—The principal town in Idaho is Boisé City; in Montana, Helena; in Wyoming, Cheyenne (*she-en'*).

30. Nevada, Utah and **Colorado** consist of level table-lands, crossed by mountain-chains.

31. *Towns.*—Carson City is the capital, and Virginia City the principal town, of Nevada; Salt Lake City is the capital and principal town of Utah; and Denver, of Colorado.

32. New Mexico and **Arizona** are also level table-lands crossed by mountain-chains.

33. *Towns.*—Tucson is the capital of Arizona. Santa Fe, the capital of New Mexico, is 7000 feet above the sea.

Questions.—*Idaho, Montana and Wyoming.*—Describe the surface. To what systems do the rivers belong? What do you know of the Yellowstone Lake and its vicinity? Where is the National Park? Is the climate of this section dry or moist? What are the principal productions?

Nevada, Utah and Colorado.—Describe the surface. What part once belonged to the bed of the ocean? Is the chief wealth derived from the mines, or from the soil? Where are the three Parks? Is Denver on high land or low land?

New Mexico and Arizona.—Describe the surface. Are these territories moist or dry? Fertile or barren? Describe the cactus. What savage tribes are there? With whom do they wage war? Who are the settled inhabitants?

THE PRAIRIES.

34. Surface.—This division embraces the country which lies east of the Great Plains. It includes the greater part of *Dakota, Nebraska, Kansas* and the *Indian Territory;* and consists for the most part of rolling prairies.

35. Climate and Vegetation.—The western part of this section belongs to the Great Plains, and has a dry climate and poor soil—better suited to stock-raising than tillage.

The eastern part is watered by moisture brought by winds from the Atlantic Ocean and Gulf of Mexico. It is a prairie country, admirably adapted both to grazing and to agriculture.

The winters are mild, except in the far north. Though the summer days are hot, the summer nights are always cool.

Throughout the whole of the region described in this chapter (the Plateau, Plains, Prairies and Coast District) cattle require no housing in winter.

36. Inhabitants.—The population is rapidly increasing, but is small as yet, and there are no large cities.

37. Dakota.—The valleys of the Red River and Missouri have the most fertile soil, and are rapidly filling up with settlers.

38. *Towns.*—Yankton is the capital.

A GRAZING SCENE IN KANSAS.

39. Nebraska and **Kansas** belong to the grain and grazing district of the Mississippi Valley. The principal exports, like those of the other Central States, are grain and live-stock.

The principal rivers are the Missouri and its branches. Most of the latter are shallow streams, which are of little commercial importance.

The rich soil produces abundant crops of corn and other grains; the banks of the streams are heavily timbered with deciduous trees, and coal is extensively mined in the eastern part of Kansas.

These states are especially adapted to grazing. Corn is very plentiful, and pasturage is abundant nearly all the year. Great herds of Texan cattle are received in Kansas and fattened for the Eastern markets.

40. *Towns.*—Omaha is the largest town of Nebraska, and Lincoln is the capital. The principal town in Kansas is Leavenworth, and the capital is Topeka.

41. The Indian Territory is reserved by our Government as a home for various tribes of Indians, many of whom were removed from the states east of the Mississippi.

Some of these tribes are partly civilized, having churches and schools. Others, however, have sunk into a condition of intemperance and idleness, and are rapidly diminishing in numbers.

42. Texas is the largest state in the Union, and is about six times the size of Pennsylvania. It consists of three divisions—the coast, the prairies, and the desert plateau.

The coast is low, and much of it swampy, like that of the other Gulf States. It produces rice, the sugar-cane, oranges, lemons and other tropical fruits.

From the coast-district to the Red River the country is a rolling prairie, with a rich soil and beautiful climate. Cotton, tobacco, corn, sheep, horses and cattle are raised here in great abundance. The north-western portion of the state is a part of the desert plateau which lies at the eastern base of the Sierra Madre.

Texas, like Mexico, contains a great number of animals. Alligators infest the waters of the coast; the jaguar and puma (or panther) are found in the forests along the river banks; and great herds of buffaloes and wild horses roam over the plains.

43. *Towns.*—Galveston and San Antonio are the largest towns. Austin is the capital.

Galveston is situated on Galveston Island and Bay. It is the principal commercial town in the state, and exports cotton, hides, wool and the other natural productions.

Questions.—Name the prairie states and territories. How are they supplied with moisture? What part of them is dry? Are the Great Plains also supplied with moisture from the Gulf of Mexico? What is the difference between prairie grass and buffalo grass? Where does the latter grow? Why are there no large cities here?

Dakota.—What part is mountainous? What is the general surface? What are the chief employments? Which has the coldest climate—Dakota or Kansas? Why? What districts are being settled? Why?

Nebraska and Kansas.—What is the general surface? Name the principal employments. Productions. Why are these states especially adapted to grazing?

Indian Territory.—Who are the inhabitants? Where did some of these tribes come from? Are they all *savages?* Why are some of the tribes diminishing in numbers?

Texas.—Describe the coast-district. The prairies. The plateau. Which are the highest—the prairies or the coast lands? The prairies or the plateau? Name the animal productions. The vegetable. Name the products of the coast. Of the prairies. What part is a desert? Which is the warmest—Texas or Kansas?

QUESTIONS ON THE MAP OF THE PACIFIC STATES AND TERRITORIES.

The Territories are Washington, Idaho, Montana, Dakota, Wyoming, Utah, Arizona, New Mexico, Indian Territory and Alaska.

Position.—What territories are on the border of British America? What states and territories on the Pacific Ocean? On the border of Mexico? Name in their order, from north to south, the row of five most eastern states and territories. The next row of four. The next row of three. Name the remaining four.

Name in their order, from west to east, the northern row of territories. The next row of states and territories, south of them, including Idaho. The next row of five. The next row of five, including California. What state east of Dakota? East of Nebraska? Kansas? What state east of Indian Territory? Of Texas?

Outline.—Where is Galveston Bay? San Francisco Bay? Puget Sound? By what strait do you enter this sound from the Pacific Ocean? Where is Galveston Island? Where are the Santa Barbara Islands? Name the capes on the Pacific coast from north to south.

Surface.—In what states or territories are the following parts of the Rocky Mountain System:—the Sierra Madre? Bitter Root Mountains? The Black Hills? Wind River Mountains? What mountains between Nevada and California? The Cascade Mountains are a continuation of the Sierra Nevada—what state and territory do they cross, and in what part?

Where are the Wahsatch Mountains? Humboldt Mountains? Blue Mountains? Between what two great chains do they lie? In what mountain-ranges are the following summits:—Pikes Peak? Longs Peak? Laramie Peak? Mt. Whitney? Mt. Hood? Mt. Shasta? Mt. Olympus? Mt. Baker? Spanish Peak? Fremonts Peak?

In what state are the valleys known as the North Park, Middle Park, South Park and San Luis Park? What basin lies between the Wahsatch Mountains and the Sierra Nevada? Where is the desert plateau called the Staked Plains? On which side of the Rocky Mountains are the Great Plains?

The Western Plateau is bounded on the east by the Rocky Mountains and Sierra Madre, and on the west by the Sierra Nevada and Cascade Range—what part of California is in this great table-land? What part of Oregon? Washington? Idaho? Montana? Wyoming? Nevada? Utah? Colorado? Arizona? New Mexico?

What state is included within the Interior Basin? The Green River and Colorado Plateaus lie between the Wahsatch and Rocky Mountains—what state and territory are partly included within these two plateaus? What part of Utah is in the Interior Basin? What part of Colorado is in the Great Plains?

What part of Montana and Wyoming is east of the principal chain of the Rocky Mountains? What branch crosses the eastern part of these territories? What part of New Mexico is east of the Sierra Madre?

Lakes and Rivers.—The lakes and rivers of this section belong to four systems.

Gulf of Mexico System.—Name the three branches of the Mississippi in this section. On which side of the Rocky Mountains do they rise? Which two rise *among* these mountains? Describe the Missouri. Name its branches in this section. Which rise among the Rocky Mountains? In what lake does the Yellowstone rise?

Name all the rivers of this section which flow directly into the Gulf of Mexico. Which one of them rises in the Rocky Mountains? In what general direction do all the rivers on the east side of these mountains flow? Why? To what great valley does most of the land east of the Rocky Mountains belong? What part of Texas is in this valley?

Pacific System.—Describe the Yukon River. Describe the Columbia from its source in British Columbia. In what mountains do its principal branches, Clark's Fork and Snake River, rise? What mountains separate these two branches? Describe the Willamette, Sacramento, San Joaquin. What lake flows into this river?

Describe the Colorado, formed by the junction of the Grand and Green. Where is the Colorado Desert, through which this river flows? Describe the Gila (*he'-lah*). Where is the Merced River? What mountains separate the Gulf System from the Pacific? Where is Tulare (*too-lah'-re*) Lake?

Hudson Bay System.—Describe the Red River of the North. Into what great bay do its waters finally flow?

Interior System.—Where is Great Salt Lake? By what river does Utah Lake flow into Great Salt Lake? Where is Humboldt Lake? What river flows into it? Where is the Mohave River?

Towns.—Describe the situation of the following towns, telling whether they are upon the coast or in the interior, upon what body of water, and in what part of the state.

California.—San Francisco, Sacramento, Oakland, Stockton, San José (*sahn ho-say'*), Marysville, Santa Barbara, San Diego, Los Angeles, New Almaden.

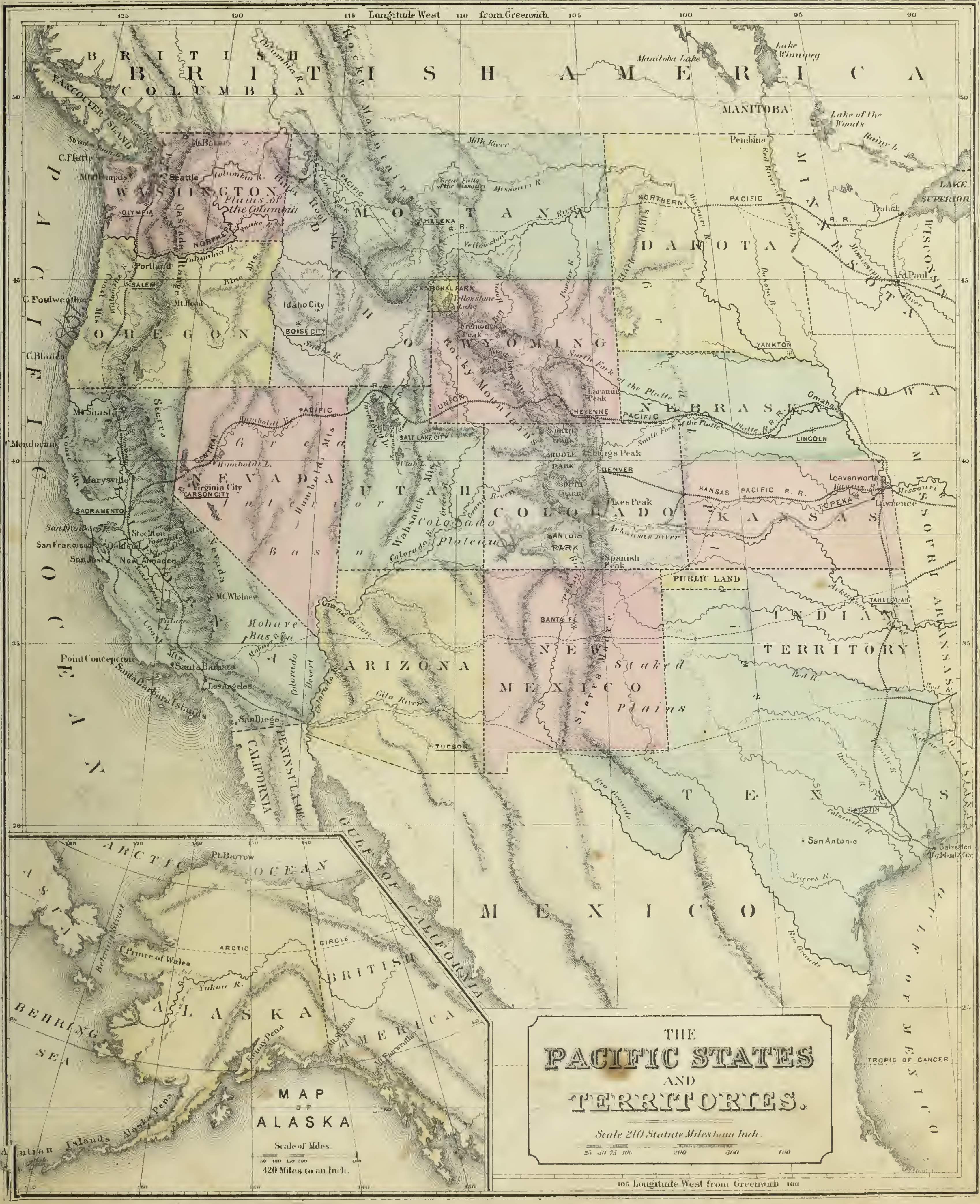
Oregon.—Portland, Salem.
Alaska.—Sitka.
Montana.—Helena.
Arizona.—Tucson.
Colorado.—Denver.
New Mexico.—Santa Fé.
Nebraska.—Lincoln, Omaha.
Indian Territory.—Tahlequah.
Washington.—Olympia, Seattle.
Idaho.—Idaho City, Boisé City.
Wyoming.—Cheyenne.
Utah.—Salt Lake City.
Nevada.—Carson City, Virginia City.
Dakota.—Yankton, Pembina (*pem'-be-nah*).
Kansas.—Leavenworth, Topeka, Lawrence.
Texas.—Galveston, San Antonio, Austin.

Questions on the Map and Text.

What mountains in Dakota? Montana? Between Montana and Idaho? Which are the highest—the Rocky Mountains or the Coast Mountains?

From what town in this section could a boat sail to Hudson Bay? What route would a ship take from San Francisco to New York? Describe the Panama route from San Francisco to New York. By what railroad would you go to St. Louis and Chicago?

In going from the Mississippi to the Rocky Mountains, would you find the climate drier, or more moist? Name all the towns given on the plateau. In the Coast Region. On the Prairies.


THE
PACIFIC STATES
AND
TERRITORIES.
Scale 210 Statute Miles to an Inch.
Longitude West from Greenwich
BRITISH AMERICA
BRITISH COLUMBIA
MANITOBA
PACIFIC OCEAN
WASHINGTON
OREGON
IDAHO
MONTANA
WYOMING
DAKOTA
NEBRASKA
IOWA
MINNESOTA
WISCONSIN
NEVADA
UTAH
COLORADO
KANSAS
CALIFORNIA
ARIZONA
NEW MEXICO
INDIAN TERRITORY
TEXAS
MISSOURI
ARKANSAS
LOUISIANA
MEXICO
GULF OF CALIFORNIA
GULF OF MEXICO
LOWER CALIFORNIA
PENINSULA OF
PUBLIC LAND
TROPIC OF CANCER
Great Interior Basin
Colorado Plateau
Staked Plains
Mohave Basin
NORTHERN PACIFIC R. R.
UNION PACIFIC
CENTRAL PACIFIC
KANSAS PACIFIC R. R.
OLYMPIA
SALEM
BOISE CITY
HELENA
CHEYENNE
SALT LAKE CITY
DENVER
CARSON CITY
SACRAMENTO
SANTA FE
TOPEKA
LINCOLN
YANKTON
TUCSON
AUSTIN
TAHLEQUAH
Seattle
Portland
Idaho City
Virginia City
San Francisco
Oakland
San Jose
Stockton
New Almaden
Marysville
Santa Barbara
Los Angeles
San Diego
Omaha
Leavenworth
Lawrence
St. Paul
Duluth
Pembina
San Antonio
Galveston
Pikes Peak
Longs Peak
Spanish Peak
Fremonts Peak
Mt. Shasta
Mt. Hood
Mt. Baker
Mt. Whitney
NATIONAL PARK
Yellowstone Lake
Lake Winnipeg
Lake of the Woods
LAKE SUPERIOR
MAP OF ALASKA
Scale of Miles
420 Miles to an Inch.
ALASKA
BRITISH AMERICA
ARCTIC OCEAN
ARCTIC CIRCLE
BEHRING SEA
ASIA
Pt. Barrow
C. Prince of Wales
Yukon R.
Aleutian Islands
Mt. St. Elias

CHAPTER IX.

REVIEW OF THE UNITED STATES.

1. **Climate.**—The eastern half is moist and fertile, being watered by winds from the Gulf of Mexico, Atlantic Ocean, and the Great Lakes. The western half (except on the Pacific coast) is generally dry and unfertile.

The change from the moist to the dry section is very gradual, and you cannot draw a boundary line between them. The western parts of Dakota, Nebraska, Indian Territory, and Texas are, however, in the dry section, and the eastern parts in the moist.

---

2. **Vegetation.**—The character of the vegetation gradually changes as we go from the south to the north, though grain, tobacco, and many other plants are cultivated in nearly all the fertile parts of the country.

3. Near the Gulf of Mexico the trees are generally evergreens. Going farther north, the evergreens gradually give place to deciduous trees.

4. In the extreme north, and especially on the mountains, the deciduous trees are less common, and the narrow-leaved evergreens of cold countries are found instead.

The pine also grows extensively at the south, but the hard, resinous, yellow pine of the south is a different tree from the soft white pine of the north.

5. The prairie states and the dry section in the west are destitute of trees, except on the mountain slopes and valleys and on the river banks. The rest of our country is heavily timbered with a great variety of the most valuable wood.

6. Besides the trees, fruits, and vegetables, the most important plants of the United States are grain, grass, cotton and tobacco.

Grain is most extensively cultivated in the northern half of the country, and grass generally succeeds best in that section. Cotton is confined to the Southern States, while tobacco is chiefly produced in a belt of land extending east and west across the middle of the country.

Rice is chiefly produced in South Carolina; sugar in Louisiana; wine in California and Ohio.

---

7. **Productions and Occupations.**—New England is principally engaged in Manufacturing; the Middle Atlantic States in Manufacturing and Mining; the Southern States in Agriculture; the Central States in Agriculture and Grazing; the Pacific States and Territories in Mining.

Agriculture is most successful in the Middle Atlantic, the Central, and the Southern States, and on the Pacific coast.

Mining for coal and iron is most extensive in the Middle Atlantic States; for lead and copper, in the Central States; for gold and silver, in the Pacific States and Territories.

Manufacturing is most important in New England, the Middle States, and Ohio.

Grazing is carried on in all the fertile parts of the country, though most extensively in the Middle Atlantic and the Central States. Vermont, Tennessee, Texas, and California are also largely engaged in grazing.

Lumbering is most important in the three Northern States of New England; in Michigan, Wisconsin, and Minnesota; in the Southern Atlantic States, and on the Pacific coast.

Naval stores, obtained from the Southern pine, are among the most important productions of the Southern Atlantic States.

Fishing is a leading business on the coast of New England, of the Middle States, and of Washington Territory.

8. Commerce is carried on in all parts of the Union. The towns of the interior send their home productions to the great cities on the coast, and the cities on the coast send back our own manufactures and the productions of foreign countries.

The commerce with foreign countries is therefore carried on by the seaport towns, while that of the interior cities is domestic.

All the interior commercial towns are situated upon navigable rivers or lakes, or upon railways and canals which communicate with the principal seaports.

Questions on the Map and Text.

[Note.—*These questions require a reference to the Maps and Text of all the preceding chapters upon the United States.*]

Outline.—Name all the gulfs, bays, and sounds from Maine to Washington Territory. All the peninsulas, capes, and islands.

Surface.—Name all the states which are crossed by the Appalachian Mountains, or the hill country at their base. All the states and territories belonging to the Western Plateau.

Lakes and Rivers.—Name the rivers and lakes of the United States which flow into the Gulf of St. Lawrence. Into the Atlantic. Into the Gulf of Mexico. Into the Pacific. Into Hudson Bay.

Climate.—Why is the eastern half of the United States fertile? Why is the western half generally unfertile? What states and territories are partly in the moist and partly in the dry section? Which is the farthest north—Portland in Oregon or Portland in Maine? Why is there so much more snow in the latter town than in the former?

Vegetation.—Name the evergreen trees at the south. On going north, what kind of trees take their place? Name them. What other deciduous trees grow in your neighborhood?

In the coldest parts of the North, what trees take the place of the deciduous? Name them. What is the difference between the southern and the northern pine?

What parts of the United States are generally destitute of trees? Which of the Central States consist partly or wholly of prairie land? Which of the Southern States?

Name the most important plants of the United States. Which is especially the grain section? The grass? Cotton? Tobacco? Where is rice most extensively produced? Sugar? Wine? White potatoes? Sweet potatoes?

Productions and Occupations.—Name the leading business in each section. Where is agriculture most extensive? Mining for coal and iron? For lead and copper? For gold and silver? What minerals besides lead and copper are abundant in Missouri and other Central States?

Where is manufacturing most extensive? Which of the New England States are most engaged in this business? Which of the Middle States? Where is lumbering important? Fishing?

Is the commerce between New York and London (England) foreign or domestic? Between Providence and Charleston? Where are the towns situated by which our foreign commerce is carried on? Is the trade of the interior towns foreign or domestic? How are the products of the interior sent to the coast?

[*See map of the Pacific States and Territories, and the opposite map.*] Across what States or Territories does the Union Pacific and Central Pacific Railroad extend from Chicago to San Francisco? The Southern Pacific, from St. Louis to San Francisco? The Northern Pacific, from Duluth, on Lake Superior?

Name the towns on the coast, from Maine to Texas, each scholar giving one. On the Pacific coast. The great lakes. The Mississippi. Its western branches. Its eastern. On the rivers flowing into the Gulf of Mexico. On those flowing into the Atlantic.

How would a New Orleans merchant send a quantity of sugar to a merchant in Bangor—by vessel or by rail? How would the Bangor merchant visit New Orleans—by land or by sea? Through what town and across what states would he pass in going by way of the Atlantic States?

Through what places and across what states would you pass in going by railroad from Portland, Maine, through Canada to Chicago? Thence to San Francisco? From Boston to Chicago? From New York to St. Paul? From Philadelphia to St. Louis? From Baltimore to Cincinnati?

What states and towns would you pass in going by water from Pittsburgh to New Orleans?

RAIL ROAD MAP

OF THE EASTERN PORTION OF THE

UNITED STATES

SHOWING THE

PRINCIPAL CONNECTING LINES.

CHAPTER X.

SOUTH AMERICA.

[To the Teacher.—*Please read the Suggestions, page 3.*]

OUTLINE.—The outline of South America is very regular, differing greatly from North America, which is penetrated by several large gulfs and bays.

2. Surface.—The surface consists of a low plain, and three regions of highland. The highlands are the Andes, and the mountains and plateaus of Brazil and Guiana.

The whole country east of the Andes, with the exception of the Brazilian, Parime (*pah-re'-may*)and Acaray (*ah-kah-ri'*) Highlands, is a vast level plain.

3. The Andes consist of two or three parallel ranges of very lofty mountains, between which are high and narrow plateaus.

Above these plateaus the mountains—many of which are volcanoes—rise to the height of 15,000 or 20,000 feet above the sea. Aconcagua (*ah-kon-kah'-gwah*) has an elevation of nearly 24,000 feet, and is the loftiest mountain in America.

Travelling. among the Andes, is very difficult and dangerous. The only roads are narrow mule-paths, that often wind along the face of a tremendous precipice, down which both mule and rider are sometimes dashed to pieces. Deep chasms are crossed upon the slippery trunk of a single tree—the traveller sitting in a chair, which is strapped upon the back of an Indian porter.

The Andes and the neighboring coast are subject to the most dreadful earthquakes that occur in any part of the world. The towns are sometimes laid in ruins, and great numbers of people killed.

After a severe shock, a great wave comes from the sea, and floods the coast, often doing more damage than the earthquake itself. Houses, cattle and people are swept into the ocean, and large ships are sometimes landed on the shore far above the beach.

4. Lakes and Rivers.—The principal rivers of South America are the Amazon, the La Plata (*la plah'-tah*) and the Orinoco.

Some of the branches of these rivers rise near each other in the low plain, where there is no watershed, and in the rainy season they mingle together; so that a canoe might pass from the Orinoco to the La Plata.

5. The Amazon is the longest river in the world. It is about 4000 miles long, and waters a valley two-thirds as large as the United States.

The northern mouth is nearly 100 miles wide, and a vessel in crossing it would be entirely out of sight of land. This great river pours forth such an immense body of water that the ocean is discolored for 250 miles from the mouth.

6. There are few permanent lakes of large size in South America. But in the rainy season the rivers overflow the level plains for hundreds of miles, and produce shallow lakes of immense extent, which disappear soon after the dry season begins.

7. *The Selvas, or Forest Plains of the Amazon,* extend along the banks of the river for nearly 1500 miles from its mouth. They contain the thickest and most extensive forests in the world.

The trees stand close together and rise to a great height, bearing brilliant flowers of every color, and clothed with climbing plants, and vines which hang in festoons from the boughs. Beneath these gigantic trees there is a heavy undergrowth of bamboos, ferns palm trees and sharp-edged grasses forty feet high.

Through this jungle the light of day is never seen. Only wild beasts can make their way, and the rivers are the only roads. No human being has ever penetrated into the deepest parts of these gloomy forests.

8. *The Llanos* (*l'yah'-noce*), *or Treeless Plains of the Orinoco,* extend from the Parime Mountains to the Andes.

During the wet season they resemble great inland seas. When the water subsides a rich growth of grass springs up, which feeds immense herds of horses and cattle. At this time the llanos abound with beautiful flowers, and swarm with insects and reptiles.

In the dry season the grass withers, the earth becomes parched, and the hot winds sweep clouds of dust over the deserted plains. The cattle go to the hills, the insects die, and the reptiles hide themselves in the earth.

9. *The Pampas, or Treeless Plains of the La Plata,* extend from the Parana (*pah-rah-nah'*) River to the Andes.

In the rainy season they are covered with tall grass, and with a dense growth of thistles ten or twelve feet high. In the dry season the pampas, like the llanos, are a desert.

10. Climate.—The greater part of South America has a tropical climate. The plateaus and the southern portions have a mild temperature, but the extreme south is very cold.

In the tropical parts of the country the heat is nearly the same all the year round. It is always summer on the plains and spring on the plateaus.

In the south (which is in the Temperate Zone) there are four seasons, but the winter begins in June, and the summer in December.

11. Easterly Winds.—In the Torrid Zone, and for several hundred miles south of it, the winds blow constantly from the Atlantic. During the rainy season they are heavily laden with moisture, which falls in floods of rain, and gives rise to the great rivers for which South America is so remarkable.

In Peru, Bolivia and the northern part of Chili, however, the Andes are too high to let the moisture pass over to the western slope. So the coast in this district is rainless and barren. North of Peru, where the mountains are lower, the rain-clouds pass over and water the Pacific Slope abundantly.

12. Westerly Winds.—South of the East Winds, the winds blow, generally, from the Pacific. The rain falls copiously upon the western coast, but the moisture cannot cross the Andes. The greater part of the Argentine Republic has therefore a very dry climate, and Patagonia is a rainless desert.

13. Vegetation.—The climate of South America combines more heat and moisture than that of any other Grand Division; hence the vegetation is more luxuriant.

In the tropical sections, the plains and lower parts of the mountains produce the forests, fruits and cultivated plants of the Torrid Zone. The plateaus and southern portions yield the grains, fruits and trees of cooler countries.

14. Animals.—On account of the excessive heat and moisture, the tropical lowlands of South America contain a greater number and variety of reptiles and insects than any other part of the world.

The boa-constrictor attains a monstrous size. Huge alligators and water-snakes swarm in the marshes and glide through the dark waters. Venomous serpents, scorpions, centipedes and spiders keep the traveller in constant alarm.

Life is rendered miserable by the incessant stinging of the flies, mosquitoes and other insects. Some places are so infested by these plagues that they are deserted, even by the Indians.

15. The wild beasts of America are not so large and fierce as those of Asia and Africa. The largest of the cat tribe in the New World are the jaguar and puma, which are much smaller and less dangerous than the lion and tiger of the Eastern Continent.

The forests are thronged with birds of splendid plumage. Troops of monkeys scream and chatter among the trees, and swing by their long tails from bough to bough. The largest bird of flight in the world is the great condor of the Andes, which hovers above the highest of the snow-capped summits.

Among the Andes the llama and alpaca are used as beasts of burden. The former is a sort of camel, and the long ~~silky wool~~ of the latter furnishes us with alpaca cloth.

On the plains at the south are the South American ostrich, and a kind of llama called the guanaco (*gwah-nah′-ko*). Great numbers of wild horses and cattle roam over the plains on both sides of the Andes.

16. Inhabitants.—The settled parts of South America are near the coast. They are inhabited by whites, Indians, negroes, and a mixture of these races—the whites forming the smallest part of the population. The interior is thinly peopled by tribes of savage Indians.

The climate is so warm, and food-plants grow so luxuriantly, that the people are not obliged to labor very hard, and that is one reason why they are not more industrious

17. Productions and Occupations.—Owing to the ignorance and laziness of the people, there are no manufactures, and only natural productions—vegetable, animal and mineral—are obtained. Agriculture and mining are in a very backward state.

1. **Vegetable Productions.**—The vegetable productions are principally those of the Torrid Zone. They consist of forest products, tropical fruits and cultivated plants.

The forest products are Brazil-wood, rosewood, ebony, mahogany and many other beautiful kinds of wood; the cocoa-nut palm and the sago palm; india-rubber (made from the milky sap of a tree); logwood, and other dyestuffs; sarsaparilla, Peruvian bark, quinine and other medicines.

The tropical fruits are oranges, lemons, bananas, pine-apples, cocoa-nuts, etc.

The cultivated plants are tobacco, indigo, cotton, the sugar-cane, the cocoa tree, the coffee tree, the manioc or cassava (which furnishes tapioca) and rice. From the sugar-cane are obtained sugar, molasses and rum.

2. **Animal Productions.**—The animal productions are derived from the vast herds of horses and cattle which graze upon the plains. Hides, horns, hair, tallow and bones are among the chief exports to foreign countries.

The Lobos and Guanape (*gwah-nah′-pe*) Islands also furnish guano.

3. **Mineral Productions.**—The Andes contain mines of gold, silver and copper. The Brazilian Mountains abound with gold and diamonds.

4. **Commerce.**—The natural productions are exported to Europe and the United States. Manufactures and other goods are received in return.

18. Countries.—The countries of South America consist of nine Republics:—namely, *Venezuela*, *United States of Colombia*, *Ecuador (ek-wah-dore′)*, *Peru*, *Bolivia*, *Chili*, the *Argentine Confederation*, *Uruguay (oo-roo-gwi′)*, and *Paraguay (pah-rah-gwi′)*; the *Empire of Brazil*, the colonies of *British*, *Dutch* and *French Guiana (ghe-ah′-nah)*, and the unsettled region of *Patagonia*.

The Republics of South America are called the Spanish Republics, because these countries formerly belonged to Spain, and the white people are of Spanish descent.

Except in Chili, however, the people are too ignorant and immoral to govern themselves well. Rebellions are so common as to attract little attention outside of the republic in which they occur.

Questions.—Name the three regions of highlands. On which side of the Andes is the great plain? Where are the plateaus of the Andes? Are the Andes higher than the Rocky Mountains? (*See Page* 16.) Could you cross them in a wheeled vehicle? To what danger are the towns exposed?

Name the three principal rivers. Where are they connected? How large is the valley of the Amazon? What kind of lakes are formed in the rainy season? Why are they shallow? Describe the Selvas. The Llanos. The Pampas.

What part of South America has perpetual summer? Perpetual spring? What is the temperature of the southern portion? Of the extreme south? What winds bring moisture to the tropical portions? At what season do these rains fall? What part of the Pacific coast is rainless? Why? What part of the Pacific coast is watered by the east-winds? By the westerly winds? Why are Patagonia and the Argentine Confederation so dry?

Why has South America so rich a vegetation? Why are the reptiles and insects so numerous? Name the insects. The reptiles. How do the wild beasts compare with those of Asia and Africa?

Where do the savages live? What districts are settled? Why are the civilized inhabitants so indolent? To what race do they belong?

Name the kinds of ornamental wood. What forest trees produce food? What is india-rubber made from? What medicines and dyestuffs are among the forest products? Which of the cultivated plants furnish food? Name the tropical fruits. Let each scholar name one of the vegetable productions and give its use, until all are named The animal productions. The mineral. What are the exports?

Name the Spanish Republics. Why are they so called? Why are they not generally well governed? Name the other countries of South America.

19. *Venezuela*, the *United States of Colombia*, *Ecuador*, *Peru* and *Bolivia* are alike in surface, climate and vegetation. Each of these republics consists of three divisions—a narrow strip of land upon the coast, the mountains and plateaus of the Andes, and a low plain extending far into the interior.

The coast is insufferably hot and unhealthy. Most of the large cities are therefore on the table-lands, where the weather is like a warm, delightful spring. The towns on the coast are small, badly built and unhealthy.

20. VENEZUELA.—Caraccas, the capital and principal city, is on a plain 12,000 feet above the sea. La Guayra (*lah-gwi'-rah*) is the chief port.

A MARACAYBO VILLAGE.

The Indians of Lake Maracaybo (*mah-rah-ki'-bo*) build their houses on posts driven into the bottom of the lake. When the Spaniards discovered the lake, these villages reminded them of Venice (a city in Italy), and they called the country Venezuela, which means "Little Venice."

21. THE UNITED STATES OF COLOMBIA.—Bogota (*bo-go-tah'*) is the capital and largest city; Cartagena is the principal seaport.

22. ECUADOR takes its name from the Equator, which crosses the northern part of the state. Quito (*ke'-to*), the capital and principal town, is almost directly under the Equator.

Quito is 9000 feet above the sea, and is surrounded by the most remarkable group of volcanoes in the world. Eleven of these magnificent mountains are in view from the city,—their snowy summits shining in the sun. Among them are the famous Cotopaxi (*ko-to-pax'-e*), and the dome-shaped Chimborazo (*chim-bo-rah'-zo*).

23. PERU.—Lima, the capital, is the largest city west of the Andes. It is on a plain seven miles east of Callao (*kahl-yah'-o*), the principal seaport.

Guano and saltpetre are the chief exports of Peru.

24. BOLIVIA is the highest mountain land in America. There are few roads in this country, and wheeled vehicles are little known. There is therefore hardly any foreign commerce.

La Paz (*lah-pahz'*), Potosi (*po-to-se'*), and Sucre (*soo'-kray*), the capital, were built long ago by the Spaniards, when the mines of gold and silver were productive.

25. CHILI is in the warm part of the Temperate Zone. The northern half of the state belongs to the barren part of the Pacific coast; the southern half is fertile.

The principal exports are copper and wheat. More copper is exported from Chili than from any other part of South America.

The people are more energetic than those of the tropical states, and Chili is one of the most prosperous countries of South America.

Santiago (*sahn-te-ah'-go*) is the capital and largest town. Valparaiso (*vahl-pah-ri'-so*) is the largest seaport on the Pacific coast.

About 400 miles west of Chili are the Juan Fernandez Islands. One of them is famous for having been the solitary residence of a Scotch sailor named Alexander Selkirk. His life here gave rise to the story of Robinson Crusoe.

26. Chili claims the whole country lying south of it, including Tierra del Fuego (*te-er'-rah del-foo-a'-go*) and the islands on the Pacific shore.

All these islands are steep and rocky, and seem to have been broken off from the mainland at some former period. They are drenched with moisture all the year round, and, although densely covered with evergreen forests, are too cool for agriculture.

27. Tierra del Fuego is a mountainous island, clothed halfway to the top with dense forests of enormous beech trees, seven feet thick. The trees have a dull brown foliage, and do not cast their leaves in winter. Strange to say, the parrot and the humming-bird are found in these cold and gloomy forests.

On this miserable island the sun seldom shines. Storm after storm of snow, hail and sleet, with heavy gales and severe cold, occur in almost constant succession.

Notwithstanding this dreadful climate, there are tribes of savages here who go almost naked, and have hardly any more shelter than wild beasts. They are perhaps the lowest human creatures in the world.

28. Cape Horn Island is a steep and naked rock, rising 3500 feet above the sea. The passage around it is dangerous and difficult, on account of the tremendous gales and bitter cold which are experienced at all seasons of the year.

29. The **Falkland** (*fawk'-land*) **Islands** belong to Great Britain. The weather is always cold, dull and disagreeable. These islands are of no value, except for the wild cattle and seals, which are very numerous.

30. PATAGONIA has a clear, dry climate, very different from that of Tierra del Fuego. A scanty growth of grass and shrubs is sufficient to support the guanaco, the ostrich and deer, which wander over this stony desert.

The inhabitants are gigantic savages, six or seven feet tall. They live on horseback, and subsist entirely by hunting and fishing.

LASSOING CATTLE ON THE PAMPAS.

31. The shores of all these rocky southern lands, like those of the colder parts of North America, are alive with water-fowl, and the icy waters abound with the seal and a great variety of fishes.

32. ARGENTINE CONFEDERATION.—The country west and south of the Parana is too dry for agriculture, although affording good pasturage in the rainy season.

The air is so dry in the interior that the water left in a pitcher will evaporate in a single night; and the dead bodies of animals left upon the plain do not putrify, but soon dry away, leaving only the skin and bones.

33. The principal exports of this republic are wool, and the hides, horns, hair and tallow of the cattle which graze upon the Pampas.

The horses and cattle are caught with the lasso by the herdsmen who have charge of them. These men are called gauchos (*gow′-chos.*) They are a lawless and dangerous class—half Spanish and half Indian.

Buenos Ayres (*bwa′-nos i′-rees*) is the capital and principal seaport. It is one of the leading commercial cities of South America. The name means "fine airs," and describes the clear, dry, healthy climate.

34. URUGUAY.—The exports are the same as those of the Argentine Confederation. Montevideo is the capital and only seaport.

35. PARAGUAY lies partly in the Torrid Zone, and has a tropical climate and vegetation.

The principal export is mate (*mah′-ta*), or Paraguay tea, which is much used in all parts of South America. This is made from the powdered leaves of a large shrub.

36. BRAZIL.—The Brazilian highlands, which occupy a large part of this country, consist of a broad, low plateau, crossed by irregular chains of low mountains.

Almost every part of Brazil is moist and fertile. The vast Selvas of the Amazon furnish the forest products; the settled districts on the coast yield the fruits and cultivated plants of the Torrid Zone; the Pampas sustain great herds of cattle; and the highlands are rich in grain, and in diamonds, gold and useful metals.

37. Brazil formerly belonged to Portugal, a country in Europe, and the whites are descendants of the Portuguese, and speak their language. The civilized inhabitants are Roman Catholics.

The whites form only a small part of the population, and are much less enterprising and industrious than the free negroes. The latter are the best lawyers and merchants, and many of them hold civil and military offices.

This country is an empire, and the chief ruler is called emperor. The people, however, make their own laws, and the country is a republic in nearly everything but the name.

38. Brazil has a very large commerce and many fine harbors. All the important towns are on the coast.

Rio Janeiro (*re′-o jah-na′-ro*) is the largest city in South America, and has an immense foreign commerce. Brazil produces about two-thirds of all the coffee used in the world, and most of this is exported from Rio Janeiro.

The forest products of the Amazon Valley are shipped from Para (*pah-rah′*).

39. GUIANA is a low, fertile region, and produces the usual tropical productions of South America. The western part belongs to the British, the middle to the Dutch, and the eastern part to the French.

Georgetown is the capital of the British, Paramaribo (*par-a-mar′-e-bo,*) of the Dutch, and Cayenne (*ki-en′*) of the French portion.

SCENE IN A BRAZILIAN FOREST.

40. The British and Dutch inhabitants are Protestants, and most of the French are Roman Catholics. Cayenne pepper comes chiefly from the French port of that name.

Questions.—What states are alike in surface, climate and productions? What are their productions? Why are the large towns built upon the plateaus?

Venezuela.—Which is the coolest and most healthy, Caraccas or La Guayra?

United States of Colombia.—Name the towns on the coast. On the highlands.

Ecuador.—Name the highland towns. The coast towns. Describe Quito.

Peru.—Name the towns. Is Lima on high or low land?

Bolivia.—Why is there so little commerce? What is the difficulty in building carriage-roads from the plateau to the coast? What caused the building of La Paz, Potosi, Sucre?

Chili.—What part is moist and fertile? Why? What part is barren? Why? How do the people differ from those of the states in the Tropics? Is the climate more favorable to industry? Name the exports. Why are not tropical products exported? Which is the largest Pacific seaport in South America? To what country does the Pacific coast, south of Chili, belong? What is the climate and vegetation of that coast?

Tierra del Fuego.—What is there remarkable about the forests? The birds? Climate? Inhabitants?

Why is the passage around Cape Horn so dangerous? Describe the Faulkland Islands.

Patagonia.—How does the climate differ from that of Tierra del Fuego? Why is the climate dry? What animals are found here? What ones abound on the southern shores of South America?

Argentine Confederation.—What part is too dry for agriculture? Why? What are the exports of Buenos Ayres? Describe it.

Uruguay.—Name the exports. The seaport.

Paraguay.—Is Paraguay warmer or colder than the Argentine Confederation? Why? What is Paraguay tea?

Brazil.—What are the vegetable productions? The animal? The mineral? What language is spoken? Where are the towns?

Guiana.—What are the climate and productions? Is the country low or high? Wet or dry? To whom does Guiana belong? Name the towns.

QUESTIONS ON THE MAP OF SOUTH AMERICA.

Position and Outline.—Bound South America. Name the countries bordering on the Pacific. On the Atlantic. What country has no sea-coast? What countries are wholly or chiefly in the Torrid Zone? What ones wholly or chiefly in the Temperate Zone? By what isthmus is South America connected with North America? Name the inlets of the sea on the northern coast. On the eastern. The western. What strait between Tierra del Fuego and the mainland?

Name the capes on the northern coast. On the eastern. On the western. What is the most northern cape? The most eastern? The most southern? The most western? What islands on the northern coast? To what large group do they belong? Which one belongs to Venezuela? (*Ans.* Margarita.) What islands east of Patagonia? South of it? West of Patagonia? Of Chili? On the coast of Peru?

Surface.—What mountains follow the Pacific coast? What mountain-ranges in Brazil? In the Argentine Confederation? On the southern border of Guiana? Of Venezuela? In what countries are the following summits of the Andes—Aconcagua? Arequipa (*ah-ray-ke′-pah*)? Chimborazo? Cotopaxi?

The Lakes and Rivers belong to three systems:—the Caribbean (*car-ib-be′-an*), the Atlantic and the Pacific Systems. The rivers of the latter are only short mountain-torrents, and are not shown upon the map.

Caribbean System.—Into what sea does the Magdalena flow? Name its tributary. These rivers are separated by what mountains? What river, with its branches, waters the valley between the Andes and the Parime Mountains? Describe the Orinoco. In what mountains do its western branches rise? Its eastern branches?

Atlantic System.—Describe the Essequibo (*es-seh-ke′-bo*). The Surinam, The Marañyon (*mah-rahn-yone′*), Huallaga (*wahl-yah′-gah*), and Ucayale (*oo-ki-ah′-lay*) are the head-waters of the Amazon; in what general direction do they flow? They are separated by parallel ranges of what mountains? In what direction do the northern branches of the Amazon flow? In what mountains do they rise? By what river is the Rio Negro(*re-o-nay′-gro*)connected with the Orinoco?

The southern branches of the Amazon rise in the Andes and mountains of Brazil; in what direction do they flow? Name those which rise in the Andes. In the Brazilian mountains. Which one rises in both?

The valley of the Amazon is bounded by what mountains on the west? On the north? On the south? The Para River is the southern mouth of the Amazon:—by what island is it separated from the northern mouth? Which one of the southern tributaries flows into the Para? Describe the San Francisco. Between what two mountain-chains does it flow?

The Rio de la Plata is really an *estuary* (or arm of the sea), 170 miles wide at its mouth. What two rivers empty into its western end? Describe the Parana. Its principal branch, the Paraguay. Describe the longest branch of the Paraguay. What branch of the Parana rises in the Andes? What river flows into the southern bank of the La Plata?

Name the rivers in the basin of the La Plata—that is, all the rivers, with their branches, which flow into it. What mountains bound this basin on the west? On the north and east? In what general direction does the Parana, with its tributaries, flow? Why? What rivers flow into the Atlantic south of the La Plata? In what mountains do they rise?

Countries and Towns.—[Note.—*In the following questions the towns on the plateaus are printed in Italics.*]

Venezuela.—Bound it. What mountains extend along the northern coast? Where is the Gulf of Maracaybo? With what gulf does Lake Maracaybo communicate? [*This is not really a lake, but is a part of the gulf.*] Where is La Guayra? *Caraccas?*

United States of Colombia.—Bound it. How many ranges of the Andes cross it? In what two countries are the Llanos? Where is *Bogota? Popayan* (*po-pi-ahn′*)? Cartagena? Aspinwall? Panama?

Ecuador.—Bound it. Where is Guayaquil (*gwi-ah-keel′*)? *Quito? Riobamba? Cuenca* (*kwen′-kah*)?

Peru.—Bound it. Where is Callao? Lima? *Cuzco?*

Bolivia.—Bound it. What lake on the plateau? What desert occupies the coast? Where is Cobija (*ko-be′-hah*)? *Potosi? La Paz? Sucre?*

Chili.—On which side of the Andes does it lie? What country east of the southern part? What part is included in the Desert of Atacama? Where is Valparaiso? Santiago? The peninsula of Tres Montes?

Patagonia.—Bound it. What river separates it from the Argentine Confederation?

Argentine Confederation.—Bound it. How does the land slope? Where is the desert called the Gran Chaco? Where is Buenos Ayres? Cordova? Mendoza?

Uruguay.—Bound it. Where is Montevideo?

Paraguay? Between what two rivers does it lie? Where is Asuncion? Concepcion?

Brazil.—Bound it. Where is Rio Janeiro? Bahia (*bah-he′-ah*)? Pernambuco? Maranham? Para?

Guiana.—In what direction does the land slope? What mountains on the southern border? What is the most eastern division? The middle? The western? Where is Georgetown? Paramaribo? Cayenne?

Questions on the Map and Text.

Load a ship at Georgetown with rum, sugar and molasses:—trace the passage to New York. With what would you load a ship at Buenos Ayres? Montevideo? Valparaiso? Rio Janeiro? Send a ship load of ebony, logwood, cocoanuts and india-rubber, from Para to Baltimore: through what waters? At what port in Venezuela would you get a load of coffee, cocoa and hides? Would South America import tobacco and rice from the United States?

Name all the towns on the coast. On the plateaus. Where is sarsaparilla found? Peruvian bark? The India-rubber tree? Herds of wild cattle? Why is there but little commerce between Cobija and Buenos Ayres?

SOUTH AMERICA
Scale 480 Statute Miles to an Inch.
50 100 200 300 400 500 600 700 800 900 1000
Longitude West 30 from Greenwich
Longitude 60 West from 50 Greenwich
CARIBBEAN SEA
CENTRAL AMERICA
PACIFIC OCEAN
ATLANTIC OCEAN
TROPIC OF CAPRICORN
EQUATOR
UNITED STATES OF COLOMBIA
BOGOTA
Popayan
VENEZUELA
CARACCAS
Orinoco R.
PARIME Mts
BRITISH
DUTCH
FRENCH
GUIANA
GEORGETOWN
PARAMARIBO
CAYENNE
ACARAY Mts
ECUADOR
QUITO
Cuenca
C. San Francisco
G. of Guayaquil
C. Parina
Lobos Is
Guanape Is
PERU
LIMA
Callao
Cuzco
Chincha Is
BRAZIL
Amazon R.
Rio Negro
Madeira R.
Purus R.
Javary R.
Tapajos R.
Xingu R.
Tocantins R.
San Francisco R.
Plateau of Brazil
CORDILLERA GERAL
SERRA TABATINGA
SERRO FRIO
Para
Maranham
C. St Roque
Pernambuco
Bahia
Bay of All Saints
C. North
Joannes
C. Frio
RIO JANEIRO
BOLIVIA
La Paz
SUCRE
Potosi
Gulf of Arica
Cobija
PARAGUAY
ASUNCION
Concepcion
Paraguay R.
Parana R.
ARGENTINE CONFEDERATION
El Gran Chaco
Salado R.
Cordova
Mendoza
Aconcagua
BUENOS AYRES
La Plata
C. St Antonio
C. Corrientes
VULCAN Mts
Colorado R.
Rio Negro
Blanco B.
URUGUAY
MONTEVIDEO
CHILI
SANTIAGO
Valparaiso
Juan Fernandez
S. Felix Is
PATAGONIA
St Matthias B.
Pena of St. Joseph
St Georges B.
C. Blanco
Chiloe Is
Chonos Archipelago
Peninsula of Tres Montes
Wellington Is
Archipelago de Madre de Dios
Falkland Is (British)
Strait of Magellan
TIERRA DEL FUEGO
Horn Is
C. Horn
Barbadoes
Tobago
Trinidad
Margarita Is
Curacoa Is
C. Gallinas
Carthagena
Gulf of Maracaybo
Gulf of Darien
Isthmus of Panama
Bay of Panama
OHIO
40,000 SQ. M.

CHAPTER XI.

EUROPE.

[To the Teacher.—*Please read the Suggestions, page 3.*]

OUTLINE.—The arms of the sea are very numerous in Europe, and reach far into the interior, so that large ships can readily visit almost all the principal countries.

2. **Surface.**—The eastern half is level. The western half is generally mountainous.

North of the mountains Western Europe is level, and unites with the great plain of Eastern Europe. Thus there is an unbroken plain, extending from the Bay of Biscay to the Ural Mountains, and from the Arctic Ocean to the Black Sea.

3. **Lakes and Rivers.**—The rivers are shorter than those of America, because they have not so great an extent of country to cross. There are two lake-regions—the Alps and the country around the Baltic Sea.

The Alpine lakes, lying in narrow mountain-valleys, are small and deep. Most of the Baltic lakes are in a flat country, and are therefore broad and shallow. They flow into the Baltic Sea.

4. **Climate and Vegetation.**—In going from the south to the north we find a gradual change in the climate and vegetation. For this reason Europe is commonly divided into three belts, called Southern, Central and Northern Europe.

The characteristic plants of Southern Europe are the mulberry, the olive, and a great variety of delicious fruits and beautiful evergreens.

In Central Europe we find deciduous trees, and the evergreens of cooler countries. This is especially the land of the grape-vine, and of hemp and flax.

In Northern Europe the grape-vine and deciduous trees give place to pines, firs, and the most hardy plants.

5. We also find a change of climate in going from west to east. Western Europe receives the warm south-west winds from the Atlantic, and is warmer and more moist than Eastern Europe. The winters are warmer, and the summers are cooler.

6. On account of the winds from the Atlantic Ocean, and Mediterranean Sea, Southern and Western Europe have a milder climate than the opposite shores of America.

Thus Marseilles (*mar-saylz'*), France, is in nearly the same latitude as Portland, Maine. But Portland has the long, severe winters of New England; while around Marseilles the orange, the lemon and the olive are cultivated in the open air.

So, too, the British Isles are green and beautiful, and support a dense population; while the opposite region of Labrador is snow-bound and desolate.

The coast of Norway is seldom obstructed by ice; but in Greenland, which lies opposite to it, the land and sea are covered with fields of ice nearly all the year.

7. One reason for the greater warmth of Norway and the British Isles, is the Gulf Stream, a current of water which crosses the Atlantic from the Gulf of Mexico and bathes these northern shores with its warmer waters.

8. **Animals.**—The greater part of the country is so thickly settled that the larger wild animals have nearly disappeared. Bears and wolves, however, are still found in some of the forests, and the Polar bear, elk and reindeer are common in the far north.

9. **Countries.**—The most powerful and important countries of Europe are *Germany*, *Great Britain*, *France*, *Austria* and *Russia*. They are called the Five Great Powers. Most of the states of Europe are monarchies.

A monarchy is a country in which the chief officer is not chosen by the people, but holds his power during life, and leaves it to his eldest son or some other member of his family. Some monarchies are called kingdoms; others, empires.

Questions.—Why can ships visit so large a part of Europe? What is the surface of Eastern Europe? What part of Western Europe is mountainous? What part is level? Why are not the rivers of Europe so long as those of America? What is the difference between the Alpine and the Baltic lakes?

Describe the vegetation of Southern Europe. Of Central Europe. Of Northern. How does the climate of Western Europe differ from that of Eastern Europe? Why? Which is the warmest, Marseilles or Portland? Why? The British Isles or Labrador? Why? Norway or Greenland? Why? Why are not wild beasts more numerous? Name the most powerful nations of Europe. What is the prevailing form of government?

SOUTHERN EUROPE.

10. This division includes *Spain* and *Portugal, Italy, Turkey* and *Greece.*

11. Climate.—The climate of Southern Europe is warm and delightful, and the sky remarkably bright and clear. The winters are generally mild and the summers hot. Snow seldom falls, except on the mountains.

But the southern parts of Italy, Spain, and France, are occasionally visited by a burning wind from the African desert, which sometimes blows for two weeks together, withering plants and making men and animals, alike, feeble and languid. This dreadful wind is called the Solano, in Spain, and the Sirocco, in Italy.

12. Vegetation.—The vegetation is almost as rich and varied as that of the Torrid Zone. The land is covered with a foliage of evergreen trees and shrubs, and many kinds of tropical plants are very largely cultivated.

13. Productions and Occupations.—The raising of the mulberry-tree and silk-worm, and the culture of the grape-vine and olive are the leading employments.

1. **Vegetable Productions.**—The olive and the grape-vine are the most important. Sweet oil is pressed from the fruit of the olive tree, and the vine furnishes grapes, raisins and wine.

Among the many kinds of fruit which grow here so luxuriantly are the orange, lemon, citron, fig and date, the walnut, chestnut and almond. The chestnut and a kind of acorn are the common food of the poorer classes in Italy and Spain.

Grain, tobacco and rice, cotton and the sugar-cane are cultivated. Spain and Portugal furnish nearly all the cork used in the world. Cork is the inner bark of the cork tree, which grows in the south of Europe, and in Asia and Africa.

2. **Animal Productions.**—Silk and wool are the most valuable.

Silk is the web which the silkworm spins around his body. The leaves of the mulberry tree are the food of this animal; and as the mulberry tree grows in abundance only in a warm climate, the production of silk is confined to warm countries.

The merino sheep of Spain are particularly valued for their long fine wool. Sardines and anchovies (little fishes about three inches long) are exported from Southern Europe and from France.

3. **Mineral Productions.**—The quick-silver mines of Almaden, in Spain, are the richest that are known, except those of New Almaden, in California. The volcanic region in Italy furnishes most of the sulphur used in the world.

4. The **Commerce** is very large. Wine, oil, silk, and the other productions are exported in great quantities.

14. Inhabitants.—The inhabitants are far behind those of the northern countries in energy and industry. The methods of farming and mining are very old-fashioned, and manufactures are almost wholly neglected.

Except in Greece and Turkey the Roman Catholic is the prevailing religion.

Questions.—Is Southern Europe mountainous, or level? Which country has the longest and coldest winters—Norway or Greece? The longest summers—Spain or Sweden? What is the Solano? The Sirocco? Which of the Middle Atlantic states of America are about opposite the south of Italy? (*use parallel forty as a guide.*) Which is the warmest—Italy or New Jersey? Why?

From what ocean and sea does Southern Europe receive its moisture? Name the tropical plants which grow in Southern Europe. Name all the products which are used for food. For clothing. For what is cork used? Name the kinds of nuts. The other fruits. Name the vegetable products. The animal. The mineral. Why cannot the silkworm be successfully raised in New England?

In what part of Europe are the people most energetic—the southern or the northern? Is Southern Europe a manufacturing or an agricultural region? What is the religion of Italy? Of Spain? Of Portugal?

15. SPAIN.—One half of this country is occupied by a rugged plateau, which is crossed from east to west by five mountain-chains.

The plateau is excessively hot in summer, and very cold in winter. A large part of it is uncultivated and destitute of trees. The fertile southern plains have a beautiful climate and a vegetation like that of the tropics.

16. *Towns*:—Madrid, the capital and largest town, is a great city, containing about 330,000 inhabitants. It is situated upon the bleak table-land, and has a very disagreeable climate.

Barcelona is the second city in population, and is the chief commercial town. Malaga is known for its export of Malaga wine, raisins and grapes. Most of the Sherry wine is shipped from Cadiz. The other principal exports of Spain are silk, wool, cork, olives, figs and other fruits.

THE ROCK OF GIBRALTAR.

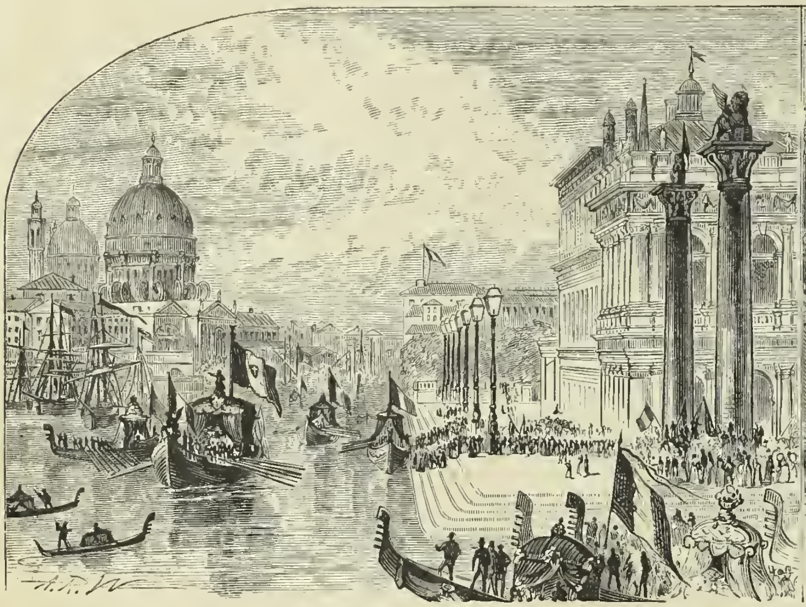
The Rock of Gibraltar rises abruptly from the sea to the height of 1500 feet, and is connected with the mainland by a low peninsula on which stands the town of Gibraltar. This bare rock belongs to the British, who have made it the strongest fortress in the world.

17. PORTUGAL resembles Spain in surface, climate and productions.

18. *Towns.*—Lisbon is the capital of the kingdom. Oporto is chiefly known for its export of port wine.

Questions.—*Spain.*—Describe the highlands of Spain. The southern plains. How does Madrid compare in size with New York? Which has the coldest winters—Madrid or Seville? What do you know about Malaga? Cadiz? The Rock of Gibraltar? What is the chief export of Spain? The other exports?

Portugal.—What is the leading product? The form of government? The religion?



SCENE IN VENICE.

STREET IN CONSTANTINOPLE.

19. **ITALY** is one of the most beautiful countries in the world. The mountains and lakes, the clear sky, the brilliant vegetation, the magnificent cities and picturesque villages, are the wonder and delight of travellers who go thither from all parts of the world.

Silk is the chief production. Northern Italy, however, unlike the rest of Southern Europe, is extensively engaged in manufactures. Straw hats, artificial flowers, musical instruments, jewelry, and many kinds of fancy goods, are made here.

20. *Towns.*—Rome is on the banks of the Tiber. It was once the chief city of the world, and is the capital of the Italian kingdom.

Naples, the largest city in Italy, is famous for its beautiful bay. Not far off is Mt. Vesuvius, which in the year 79 buried in ashes and lava two ancient cities, Pompeii and Herculaneum.

A volcanic district extends along the south-western coast, the principal active volcanoes being Vesuvius, Etna and Stromboli. The latter is one of the Lipari Isles.

Venice is built upon seventy-two small islands. In most parts of the town, canals take the place of streets, and boats called gondolas are used instead of carriages.

21. Sicily, Sardinia, Elba and the Lipari (*lip'-ah-re*) Isles are mountainous islands belonging to Italy.

Sicily is a beautiful island, clothed with the richest vegetation. Above the green hills Mt. Etna rises in solitary grandeur to the height of nearly 11,000 feet.

The eruptions from Mt. Etna have often overwhelmed the villages which cluster upon its slopes, and the city of Catania, which lies at its base. But Catania has each time been rebuilt in greater beauty than before:—the palaces, churches and theatres being made from the very lava which has so frequently destroyed them.

22. **EUROPEAN TURKEY** forms nearly one-half of the Turkish Empire—the rest of which is in Asia and Africa.

The government of the Turkish Empire is styled the Sublime Porte, and the sovereign is called the Sultan.

23. European Turkey is crossed by three principal mountain-chains—the Dinaric Alps, the Balkan and Carpathian Mountains.

The plains of the Danube are exposed to the north-east winds from Russia, and are intensely cold in winter and hot in summer. The Danube is frozen over in winter, and the people travel in sledges over the snowy plains.

The southern and western parts of Turkey are protected from these winds by the Alps and Balkan Mts., and enjoy the same soft air as the rest of Southern Europe.

Besides the usual fruits, grains, etc. of Southern Europe, Turkey exports a great quantity of opium and other drugs, and many perfumes, such as the attar of roses.

The Turks are the governing race, but they form only about one-fourth of the population in European Turkey. They are the followers of Mohammed, who died in the year 632. They believe in one God and that Mohammed is his prophet.

The remaining inhabitants of Turkey are Christians, and belong generally to the Greek Church.

24. *Towns.*—Constantinople, the capital of the Turkish empire, contains half a million of inhabitants, and is the great commercial centre of the Levant (*le-vant'*).

The city is built upon hills which surround a beautiful harbor called the Golden Horn. With its numerous gardens, cypress trees, palaces and towers, it presents a splendid appearance when seen from the water. But on entering the town, you find the streets narrow, filthy and crooked, and lined with miserable houses of wood or clay.

25. **GREECE** occupies a mountainous peninsula, cut almost in two by the Gulf of Lepanto. The surface is crossed by the chain of Mt. Pindus, and a branch of it called Mt. Parnassus.

Most of the inhabitants are descended from the ancient Greeks, and speak nearly the same language as that of their ancestors. They are skilful sailors and shrewd merchants, and carry on most of the commerce of the Levant.

The ancient Greeks worshipped many gods, for whom they built beautiful temples of marble; and the ruins of these splendid buildings are found in all parts of the land. The modern inhabitants are Christians, and belong to the Greek Church. But they are a mean and insignificant people, compared with their noble ancestors.

26. *Towns.*—Athens is the capital of the kingdom.

27. **Islands.**—The Ionian Isles, the Cyclades and Negropont, belong to Greece; Candia to Turkey.

Questions.—*Italy.*—What two ranges of mountains form one continuous chain? What is the chief production? The other natural productions? Name the manufactures. What makes Italy so interesting to travellers? Tell all you know about Rome. Naples. Venice. Catania. Where is the volcanic district of Italy?

Turkey.—Describe the surface. The climate of the northern part. Of the southern and western parts. What is the cause of the difference in climate? Name the productions. Describe Constantinople.

Greece.—Describe the surface. What language do the modern Greeks speak? Tell all you know about them. What country owns Candia? The other coast islands?

In which of the countries of Southern Europe do the people belong to the Catholic Church? To the Greek Church? Where are the Mohammedans?

NORTHERN AND EASTERN EUROPE.

28. This division includes *Russia, Norway* and *Sweden.* The climate, vegetation and many of the animals resemble those of the northern half of the United States.

Deciduous trees are found in the warmer sections, and the pine and fir in the far north. Grain and tobacco, potatoes, hemp and flax are the cultivated plants, as in Canada and the northern states of our own country. So too the bear, wolf, fox, and reindeer are common in the forests and on the cold Arctic coast.

29. RUSSIA is an immense plain occupying one-half of Europe. A large part of the country is covered with lakes, salt marshes and forests; and in the south are vast treeless plains called Steppes.

30. The rivers are the largest in Europe. They are connected by many canals, so that boats may pass from the Black Sea and the Caspian to the White Sea and the Baltic.

These rivers and canals are the principal highways, and cross the country in all directions. When the spring snows melt and the autumn rains fall, upon the low, flat land, the common roads are entirely impassable.

31. The climate is severe. The winters are exceedingly cold, even at the south, the country being buried in snow four or five months in the year. The summers are hot as far north as St. Petersburg.

32. Much of the soil is very rich, and yields great crops of grain, hemp and flax, beet-root (for making sugar) and tobacco.

Great numbers of horses, cattle and sheep are reared on the Steppes and in other parts of Russia; and hides, wool and tallow are among the most important products. The Ural Mountains abound with gold and silver, platinum, iron and copper.

33. The commerce is very large. The chief export is grain, for Russia is one of the leading grain-countries of Europe.

34. Russia is an empire, and the ruler is called Czar. This empire is the largest in the world, embracing the eastern half of Europe and more than a third of Asia.

35. The Russians belong to the Greek Church. The peasantry were, until a few years ago, the slaves of the czar and the nobles, and are very rude and ignorant.

The Lapps and Finns are a race of little people who live in Lapland and Finland. These countries are buried in snow nearly all the year, and the inhabitants derive their food, clothing and shelter mainly from the flesh and skin of the reindeer.

36. *Towns.*—The splendid city of St. Petersburg is one of the handsomest, gayest, and coldest capitals in Europe. It is built upon piles driven into the marshy banks of the river Neva.

St. Petersburg contains about 700,000 people, and is the chief seat of the foreign commerce of Russia. Cronstadt is the port of St. Petersburg, for large vessels cannot ascend the Neva to that city.

The great city of Moscow is in the midst of the most fertile part of Russia, and is the centre of the manufactures and domestic commerce. Odessa is the chief grain-port.

37. NORWAY and **SWEDEN** form one kingdom. A great part of the country is wild and mountainous, abounding in precipices, cascades, beautiful lakes and swift rivers.

These mountains come close to the sea in Norway, giving the coast a very bold and rocky character. Mountainous islands line the shore, and many deep, narrow bays, called *fiords*, reach far into the interior. Their steep walls often rise to a great height above the water. In Sweden the mountains are farther from the coast, and the eastern and southern districts are therefore level.

38. The winters are long and cold. Owing to the Gulf Stream, however, the western and northern shores of Norway have a milder winter than some countries much farther south; the fiords are rarely obstructed by ice.

39. The chief productions and exports are obtained from the mines, the forests and the fisheries; for the climate is too cold for successful agriculture.

Swedish iron is famous for its fine quality. Cod and herring are taken in immense quantities on the coast of Norway.

40. The inhabitants are Protestants. They are tall, strong and hardy, honest, industrious and intelligent. Schools are established almost everywhere, and the parents are very careful to teach their children by their own firesides in the long winter nights.

A NORWAY FIORD.

The Norwegians and Swedes are among the best sailors in the world; they are accustomed in their fishing-boats to meet the perils of a dangerous rock-bound coast.

41. *Towns.*—Stockholm is the capital of Sweden and of the united kingdoms, and Christiania is the capital of Norway.

Questions.—*Russia.*—Describe the surface. Why are the rivers larger than in other parts of Europe? Of what use are the rivers and canals? Describe the climate. Are the winters colder or warmer than those of France and the British Isles? Why?

What are the agricultural products? In what part of North America are these plants cultivated? Name the animal products. The minerals. Where are the latter found? What is the chief export?

Tell what you know about the Lapps and Finns. About St. Petersburg, Cronstadt, Moscow, Odessa.

Norway and Sweden.—What mountains give this peninsula a rugged surface? Why has Sweden more level land than Norway? What softens the climate of Norway? Name the exports. Why are the people good sailors? Which would you prefer to settle in our country—the Norwegians or the Greeks? Why?

QUESTIONS ON THE MAP OF EUROPE.

Position and Outline.—In what zone is the greater part of Europe? In what zone is the extreme north? What ocean on the north? The west?

What two large seas on the south? What one on the south-east? What Grand Division on the east? How is Europe separated from Africa?

What inlet of the Arctic Ocean on the coast of Russia? What countries lie around the North Sea? Through what waters would you sail from this sea to the Baltic? What is the northern part of the Baltic called? The eastern?

What countries around the Baltic and its branches? What waters on the coast of the Scandinavian Peninsula (containing Norway and Sweden)? Of the peninsula of Jutland?

What passage from the North Sea to the English Channel? What waters on the coast of France? Bound the Spanish Peninsula (containing Spain and Portugal). Bound Italy.

What waters on the coast of the Turkish Peninsula (containing Turkey and Greece)? What strait connects the Black Sea with the Sea of Azov? Name all the waters on the coast of Russia. What countries of Europe border on the Mediterranean and its branches? On the Black Sea?

Where is the Grecian Archipelago? [*The word "archipelago" means "sea of islands."*] Through what waters would you pass in going by sea from the Sea of Azov to the Gulf of Finland?

Where is North Cape? Where are the Loffoden Islands? Where is the cape called the Naze? What islands in the Baltic Sea? What three groups north of Great Britain? Where is Iceland?

Where is Cape Ortegal? Finisterre (*fin-is-tair'*)? St. Vincent? Name the Balearic (*bal-e-ar'-ik*) Isles. To what country do they belong?

What islands south-west of Italy? What one south of Sicily? Which of these islands belong to France? To Great Britain? What strait between Sardinia and Corsica? Between Sicily and Italy? Between Italy and Turkey?

Where are the Ionian Isles? Candia? Negropont? Where is Cape Matapan? What bodies of water are connected by the Strait of Dardanelles? By the Strait of the Bosphorus? Bound the Crimean Peninsula. What part of the Mediterranean Sea is called the Levant?

Surface.—The following chains form a mountain-system which crosses Europe from west to east: in what countries are they—Pyrenees, Cevennes (*say-ven'*), Alps, Dinaric Alps, Balkan, Carpathian, Crimean Mountains, Caucasus (*kaw'-ka-sus*)?

The three peninsulas of Southern Europe contain branches of this mountain-system. What five chains cross the Spanish Peninsula from east to west? Describe the Apennines. With what other mountains in Northern Italy are they connected?

Where is Mt. Etna? Vesuvius? What mountains extend along the eastern shore of the Adriatic Sea? Are the Balkan Mountains connected with them? With the Carpathian?

What chain extends southward from the Balkan Mountains into Greece? Where is Mt. Olympus? Where are the Ural Mountains? What chains extend through the Scandinavian Peninsula?

A ridge of low hills and plateaus crosses the centre of Russia from the Ural to the Carpathian Mountains—in what direction? In what part of this ridge are the Valdai (*vahl'-di*) Hills?

Lakes and Rivers.—The lakes and rivers may be divided into seven systems: that of the Arctic, Baltic, North Sea, Atlantic, Mediterranean, Black Sea and Caspian.

Arctic System.—Name the rivers which flow into the Arctic Ocean and its inlets. In what direction do they flow? Where do they rise?

Baltic System.—Describe the Duna, Niemen (*ne'-men*), Vistula, Oder. Into what gulf do the waters of Lakes Saima (*si'-mah*), Onega and Ladoga flow? Lake Peipus (*pay'-e-pooce*)?

In what part of Sweden are Lakes Malar, Wetter and Wener? These lakes are connected by a canal which unites the Baltic Sea with the Cattegat. By what lakes would you pass from the Cattegat to the Baltic?

In what direction and into what sea do the rivers of Sweden generally flow? In what mountains do they rise? Why are they short?

North Sea System.—In what direction do the Elbe, the Weser, the Rhine, and the Meuse flow? The Thames?

Atlantic System.—What river of France flows into the English Channel? What three into the Bay of Biscay? What four in the Spanish Peninsula flow into the Atlantic Ocean? By what mountain-chains are they separated from each other?

Mediterranean System.—Describe the Ebro. The Rhone. The Tiber. The Po. Between what mountains does the valley of the Po lie?

Black Sea System.—What rivers flow into the Black Sea? Into the Sea of Azov? Which of these rises in the central watershed of Russia?

Caspian System.—Describe the Volga. The Ural.

Name in their order, from east to west, all the rivers of Europe (not including those in Sweden and England) which flow into the northern and western waters. In what general direction do they flow? Name those which flow into the southern waters.

Countries and Towns.—*Spain.*—Bound it. Describe the situation of the following towns, telling in what part of the country they are, whether upon the coast or the interior, and upon what water: Madrid, Granada, Seville, Almaden, Barcelona, Malaga, Gibraltar, Cadiz.

Portugal.—Bound it. Where is Lisbon? Oporto?

Italy.—Bound it. Where is Turin? Milan? Venice? Genoa (*jen'-o-ah*)? Florence? Leghorn? Rome? Naples? Messina (*mes-se'-nah*)? Syracuse? Catania? Palermo? Valetta?

Greece.—Bound it. Where is Athens? Corinth?

Turkey.—Bound it. Name the branch of the Danube in Turkey. Where is Constantinople? Adrianople? Jassy? Galatz? Bucharest (*boo-kah-rest'*)? Belgrade?

Russia.—Bound it. Name all the rivers which flow north. South. Where is Lapland? Finland? Odessa? Sebastopol? Astrakhan? Moscow? Nijni Novgorod? Warsaw? Riga? St. Petersburg? Cronstadt? Archangel? Wilna? Kharkov? On what rivers are Saratov? Kazan? Kiev? Kichinev?

Sweden.—What countries on the north? On the west? What waters on the coast? Where is Upsal (*oop'-sahl*)? Stockholm? Carlscrona? Gottenburg?

Norway.—Bound it. Where is Christiana? Christiansand? Bergen? Hammerfest?

Questions on the Map and Text.

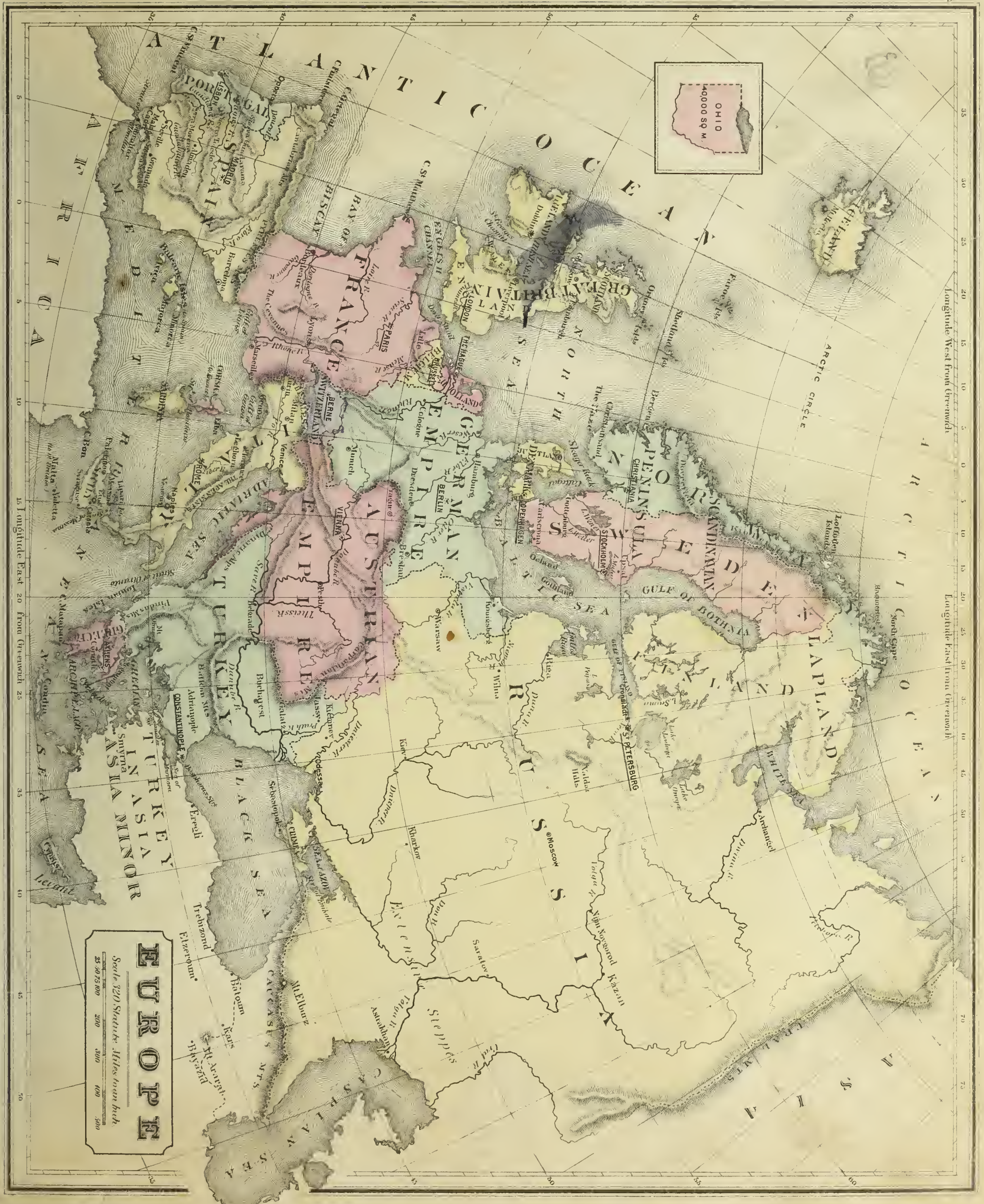
With what would you load a vessel at Odessa for Stockholm? Through what waters would she sail? Is it likely that grain would be exported from Europe to the United States? Why?

Describe the passage, by sea, from Cronstadt to the Sea of Azov. How could you go by water across the country from St. Petersburg to Astrakhan? Ship a cargo of iron, ropes, sail-cloth and Russia leather from St. Petersburg to Boston:—by what waters?

Send a vessel from New York to some port in the Mediterranean:—to what town could you send her, and what productions could she bring back? Send a vessel loaded with salt fish from Gottenburg to Malaga:—by what waters? What could she bring back?

Which are the most energetic and industrious:—the Norwegians or the Italians? Which have the best climate and the most fertile soil? Which do you suppose make the most of their advantages?

[NOTE.—*Let each scholar describe some town which begins with A, and so on through the alphabet, including only those referred to in the previous questions.*]


EUROPE
Scale 320 Statute Miles to an Inch.
25 50 75 100 200 300 400 500
ATLANTIC OCEAN
ARCTIC OCEAN
ARCTIC CIRCLE
OHIO
40000 SQ M.
ICELAND
GREAT BRITAIN
IRELAND
ENGLAND
SCOTLAND
NORTH SEA
BAY OF BISCAY
PORTUGAL
SPAIN
FRANCE
PARIS
LONDON
THE HAGUE
HOLLAND
BELGIUM
SWITZERLAND
BERNE
GERMAN EMPIRE
BERLIN
AUSTRIAN EMPIRE
VIENNA
ITALY
ROME
ADRIATIC SEA
TURKEY
CONSTANTINOPLE
GREECE
ATHENS
BLACK SEA
CASPIAN SEA
RUSSIA
ST PETERSBURG
MOSCOW
FINLAND
LAPLAND
SCANDINAVIAN PENINSULA
NORWAY
SWEDEN
STOCKHOLM
CHRISTIANIA
DENMARK
COPENHAGEN
BALTIC SEA
GULF OF BOTHNIA
WHITE SEA
TURKEY IN ASIA
ASIA MINOR
AFRICA
MEDITERRANEAN SEA
ASIA
URAL MTS
CAUCASUS MTS
Steppes
Levant
Longitude West from Greenwich
Longitude East from Greenwich

CHAPTER XII.

CENTRAL EUROPE.

CENTRAL Europe includes *Switzerland, Austria, Germany, Denmark, Holland, Belgium* and *France.*

2. **Surface.**—The central mountains of this division are the Alps. They are the highest mountains in Europe, and are surrounded by numerous lower ranges, which cover a great part of France, Germany and Austria. The country west, north and east of this high land, belongs to the great plain of Europe.

VIEW OF MONT BLANC.

Mont Blanc, in France, is the highest summit of the Alps, and with the exception of Mt. Elbruz is the loftiest mountain in Europe. It is nearly 16,000 feet high.

"Alp" means "white." The tops of the higher Alps are covered with snow throughout the year; and in the upper valleys there are great fields of ice called glaciers.

3. **Lakes and Rivers.**—All the larger rivers have their sources in the Alps or in the lower mountains which surround them. The lakes are very deep, and the mountains often rise from the water's edge for many thousand feet.

The Rhine and the Rhone are produced by the melting of the glaciers. The Rhine, flowing into a deep narrow valley, forms Lake Constance; and the Rhone in like manner forms Lake Geneva.

4. **Climate.**—The climate is not so warm as that of Southern Europe, nor so cold as that of Norway and Russia. Germany and Austria are cooler and drier than France, because they are not so much affected by the warm, moist winds from the Atlantic.

5. **Productions and Occupations.**—Manufacturing is the leading employment in most of these countries. The manufactures are of endless variety, embracing a great many costly and elegant articles not made in our own country.

Rich silks and velvets, beautiful laces and carpets, perfumery, jewelry, porcelain, and fancy goods, are made in nearly all the countries of this section.

1. **Vegetable Productions.**—The cultivated plants are grain, hemp and flax, potatoes and tobacco, the beet-root and the grape-vine.

The vineyards supply the famous wines of Germany, France and Austria. Grain is used for making bread, beer and spirits. Flax is manufactured into linen; and flaxseed, when pressed, yields the oil so much used in paint. Most of the sugar consumed in this section is made from the beet.

The forests of oak, chestnut, maple and other deciduous trees cover the lower slopes of the mountains, while the pine and fir grow higher up. The forests are carefully protected by law from wasteful destruction.

2. **Mineral Productions.**—The precious metals are not very abundant, but the mines of iron, copper, lead, zinc, tin, coal, salt, etc. are of great value.

3. **Animal Productions.**—Wool, butter and cheese are the most important.

4. **Commerce.**—The manufactured goods (including wine) are the leading exports. They are sent to nearly all parts of the world.

6. **Inhabitants.**—Central Europe has a crowded population, and the people are obliged to labor steadily for a living. Every branch of industry is therefore carried to its highest perfection.

7. *Towns.*—Almost all the towns and cities of Europe are very old, and are full of strange and interesting objects:—grand old cathedrals and palaces, beautiful public gardens, great universities, schools of music, and galleries of painting and statuary.

Questions.—What are the highest mountains in Central Europe? Name all the lower ranges which surround them. To what plain does the rest of Central Europe belong? Where do the rivers rise? Where are the lakes? Why is France warmer and more moist than Germany? Name the cultivated plants. What is made from the grape-vine? Flax? Tobacco? Beets? Grain?

What forest trees grow in Central Europe? How do they differ from those of Southern Europe? Name the animal products. The minerals. How do the manufactures differ from those of our own country? In which section are manufacturing, mining and farming most skilfully carried on—in Southern or Central Europe?

8. **SWITZERLAND.**—The Alps and the Jura Mountains cover more than half the country. The northern half is a rugged plateau, with many hills and low mountains.

9. Switzerland is famous, the world over, for its magnificent scenery. There are many mountains far higher than the Alps, but none so celebrated for their wild and beautiful views.

Unlike other lofty mountains, the Alps are crossed in all directions by admirable carriage-roads, which are thronged with travellers all summer long.

The people who live among these mountains are exposed to great danger from the *avalanches*, or snow-slides. Enormous masses of hardened snow become loosened from the steep slopes, and fall with an awful noise over the precipices upon the valleys below. Whole villages are sometimes destroyed in this way.

10. More than half the Swiss are Protestants, but the people of the Alpine cantons (or states) are Roman Catholics.

Wood-cutting in the forests, and the care of cattle on the green mountain-pastures, employ most of the people. The manufactures for which the Swiss are best known are watches, jewelry and musical boxes.

11. *Towns.*—The towns are not large. Geneva is the largest, and is the centre of the trade in watches. Berne is the capital.

12. The **AUSTRIAN EMPIRE** includes many distinct races of men, speaking different languages. One-fifth of the people are Germans, most of whom are found in the western provinces.

Three-fourths of the country are mountainous. Hungary is the only extensive plain.

13. The Danube and its branches are navigable for steamboats throughout the empire, and afford communication with the Black Sea.

The Danube in several places flows through narrow mountain-passes, where the solemn grandeur of its scenery is even more striking than the beauty of the Rhine. In Hungary and Turkey the Danube spreads out over the flat plains, and produces marshes of great extent.

The famous Tokay wine of Hungary, and the beautifully colored glass of Bohemia, are among the productions of Austria. The manufactures are generally carried on by the Germans, who are the most intelligent of the people.

14. *Towns.*—Vienna is the capital and largest city of the empire. It contains over 1,000,000 inhabitants, most of whom are Germans.

Pesth is the second city in size. Prague is the centre of commerce in Bohemia.

At Wieliczka (*v'yay-litch'-kah*) is the richest salt mine in the world. It is like a subterranean city,—or rather four cities, one beneath the other,—hewn out of the salt rock. In this famous mine are a fresh-water lake and rivulet.

15. The **EMPIRE OF GERMANY** includes the kingdoms of *Prussia, Bavaria, Wurtemberg* and *Saxony*, and many other smaller states.

16. The southern and western districts are mountainous. The northern and eastern are level.

17. The Rhine is the principal river of the empire. It is navigable throughout the greater part of its course, and is connected by canals with the Danube, the Rhone and the Seine. At about the middle of its course is the finest part of the scenery for which the Rhine is so distinguished.

Here the mountains hem in the river on both sides; their steep slopes clothed with vines, and their frowning summits crowned with ancient castles. Towns and villages lie nestled at the foot of lofty heights, and the river itself is adorned with green and picturesque islands.

The productions of the German Empire are such as are common to Central Europe. Among those which are best known, are the fine wool of Saxony, the Rhine wines of Prussia, and the beer of Bavaria.

18. The Kingdom of Prussia is the most powerful of the German states, and the Prussian king is the Emperor of Germany.

Berlin is the capital of Prussia and of the German Empire. It is the largest city of Germany, and contains nearly a million inhabitants. Dantzic is the principal German seaport on the Baltic.

19. As a general rule, the Germans in Austria, and in the southern parts of Germany, are Catholics, and those of Northern Germany are Protestants.

Schools are established in Austria and in nearly all the German states, and the proportion of people who cannot read and write is very small. But besides the common schools, there are universities and many other institutions of learning.

The Germans are foremost in music, and in almost all kinds of knowledge. Wherever they are found they exhibit the same frugality, intelligent industry and love of music.

20. **DENMARK**, **HOLLAND** and **BELGIUM** are low, flat countries, but little raised above the sea. They are kingdoms.

The Danes and the Dutch are Protestants. The Belgians are Catholics. Schools are universal in Denmark and Holland; and the people are consequently very enterprising and intelligent.

The inhabitants of Denmark and Holland have always been a seafaring people, and chiefly devoted to commerce. The Belgians are mainly engaged in agriculture, mining and manufactures.

21. **DENMARK** includes the northern part of Jutland, and a great many islands on the coast.

There are no mines or forests, and but little manufacturing or agriculture. Stock-raising and dairy products, commerce and fishing are the sources of wealth.

Copenhagen (*Merchants Haven*) is the capital and largest city.

22. **HOLLAND** is crossed in every direction by immense walls of earth called dykes, which prevent the ocean and the rivers from overflowing the land.

SCENERY IN HOLLAND.

Roads and canals are made upon the tops of these dykes, and every village has its canal, which is crowded with boats in summer and with skaters in winter.

23. Holland is a very windy country, and the windmills, which are everywhere seen, turn the machinery for draining the wet and marshy land, and are also used in manufacturing.

The wealth of Holland is derived from dairy products, fishing, manufactures (especially of linen and distilled liquors) and commerce. The commerce is very large, particularly with the East India Islands.

24. *Towns.*—Amsterdam, the principal town, is a large commercial city, divided by numerous canals into ninety islands. The Hague is the capital.

25. BELGIUM is so thickly settled that it seems like one continuous village, and the whole country is cultivated like a garden.

The south-eastern provinces are broken by ranges of hills called the Ardennes (*ar-den*) mountains.

Belgium is rich from her agriculture, mines and manufactures. In the production of coal this country ranks next to England.

26. *Towns.*—Brussels, the capital and largest town, is one of the finest cities in Europe, and is well known for its manufacture of carpets and laces.

27. FRANCE.—The eastern and southern districts are mountainous. The rest is level.

28. France has a beautiful climate and a fertile soil. In the south are the mulberry, the olive, the orange, and other plants of Southern Europe. Farther north are the grain and other products of Central Europe.

29. France is rich in mines of iron and other useful minerals, and is one of the greatest manufacturing and commercial countries in the world. Almost all kinds of French manufactures are highly prized for their fine quality and their elegant designs.

This is especially the case with the silks, velvets and broadcloths; the laces, ribbons and gloves; the jewelry, porcelain and glass wares, and almost every kind of fancy goods.

These articles, together with wine, brandy, olive oil and sardines, are sent to all parts of the civilized world.

30. The French are generally Roman Catholics. The peasantry are ignorant and superstitious, but the people of the towns are singularly ingenious, witty and intelligent.

31. *Towns.*—Paris is considered the most beautiful city in the world, and is the centre of taste and fashion. It contains nearly two millions of people.

Lyons is the second city in size and the principal seat of the silk manufactures. Marseilles is the most important seaport, and is extensively engaged in manufactures of various kinds. Rouen is the centre of cotton manufactures. Havre is the port of Paris and Rouen

Questions.—*Switzerland.*—Describe the surface. What danger in living among the Alps? Would the avalanches occur if the mountains were not steep? What cantons are especially Catholic? Name the employments. What do you know of Geneva?

Austria.—What part is occupied by Germans? What is the surface of Hungary? Of the rest of the empire? What rivers in Austria are navigable? Describe the Danube. Where is Tokay wine made? Bohemian glass? By whom are the manufactures carried on? Describe the salt-mines at Wieliczka.

German Empire.—Name the principal divisions. What part belongs to the Great Plain of Europe? Where is the most beautiful part of the Rhine? What makes this river so beautiful? Tell what you know of Prussia. Of Berlin. Danztic. What parts of Germany are Catholic? Protestant? Describe the character of the Germans.

Denmark.—Describe the surface. To what plain does it belong? What are the chief employments? The religion?

Holland.—What is the surface? What are the dykes? Where are many of the roads and canals? For what are windmills used? Describe Amsterdam.

Belgium.—What part is hilly? What is the general appearance of the country? The leading occupations? What is said of the production of coal? Name the manufactures.

France.—Where is the level land? To what plain does this belong? Where is the high land? Describe the climate. Cultivated plants. Manufactures. Why are they generally preferred? Is France a commercial country? Is it rich in minerals? What is the religion? Which is largest, New York or Paris? What do you know about Paris? Lyons? Marseilles? Havre?

QUESTIONS ON THE MAP OF CENTRAL EUROPE.

Surface.—The Alps extend in a half circle from the south-east shores of France to the western shores of Turkey; what countries do they cross? The Jura and the Vosges (*vozh*) form one chain, extending from the Alps—in what direction?

What mountains in Germany parallel with the Vosges? What river between these two ranges? A chain extends from the Vosges to the Pyrenees—in what country and in what direction? What name is given to the northern part of this chain? To the southern?

What mountains surround Bohemia? Hungary? What chain extends north-west from Bohemia? Is it connected with the Black Forest Mountains? Where is Mont Blanc? What mountains in the northern part of France extend into Belgium? What mountains between France and Spain?

Lakes and Rivers.—[*In describing these rivers, state in what country, mountains and lakes they rise; in what direction and through what countries they flow, and into what waters.*] From what Alpine lakes do the Rhine and the Rhone flow? Describe the Rhine. What river flows into the Rhone? What mountains enclose the valley of the Rhone and Saone (*sone*)? Where is the Moselle River?

What two rivers flow into the Gironde (*je-rond′*)? Describe the Garonne. The Dordogne. The Loire (*lwahr*). The Seine. The Meuse. The Weser. The Elbe. The Oder. The Vistula.

Describe the Danube. Name all the branches which flow into its right bank. Its left bank. Name in their order all the rivers of Central Europe which flow into the northern and western waters. Into the southern waters.

Countries and Towns.—*Switzerland.*—Name the mountains. The rivers. Where is Lake Geneva? Lake Constance? Where is Geneva, Basle (*bahl*), Berne, Zurich?

Austrian Empire.—Bound it. Name the mountains. Rivers. Where is the province of Tyrol (*tir-rōl′*)? Of Bohemia, Moravia, Austria, Hungary, Transylvania, Dalmatia, Galicia? Where is Vienna, Buda (*boo-dah*), Pesth, Prague, Trieste, Wieliczka?

German Empire.—Name the mountains. Rivers. Where is Prussia, Saxony, Bavaria, Wurtemberg? The cities of Berlin, Breslau, Munich, Dresden, Cologne, Leipsic, Dantzic, Strasburg, Frankfort-on-the-Main, Frankfort-on-the-Oder, Bremen, Hanover, Hamburg, Ulm?

Denmark.—What water separates it from Norway? From Sweden? What strait between Zealand and Sweden? Between Zealand and Funen? Funen and the peninsula? Where is Copenhagen?

Holland.—Where is the Isle of Texel? Name the rivers. On what inlet of the sea is Amsterdam? Where is Rotterdam, Schiedam (*skee′-dam*), The Hague?

Belgium.—Where is Brussels, Antwerp, Waterloo, Ghent, Liege?

France.—What mountains? Rivers? Capes? Bays? Where is Paris, Versailles, Lyons, Marseilles, Bordeaux (*bor-do′*), Lille (*leel*), Toulouse, Rouen, Brest, Toulon, Havre, Nice (*neece*), Nancy, Tours, Boulogne, Calais (*kah-lay′*)?

Questions on the Map and Text.

Name all the towns on the coast. On the rivers and lakes. Name the three largest cities. How is the Rhine connected with the Danube? With the Rhone? The Seine? Which are the highest, the Alps or the Andes? In what direction do most of the rivers flow?

CENTRAL EUROPE
Scale 150 Statute Miles to an Inch.
OHIO
40,000 SQUARE MILES.
NORTH SEA
ENGLISH CHANNEL
BAY OF BISCAY
MEDITERRANEAN SEA
ADRIATIC SEA
BALTIC SEA
BLACK SEA
ENGLAND
FRANCE
SPAIN
BELGIUM
HOLLAND
SWITZERLAND
ITALY
GERMAN EMPIRE
PRUSSIA
AUSTRIAN EMPIRE
RUSSIA
TURKEY
DENMARK
NORWAY
SWEDEN
HUNGARY
BOHEMIA
MORAVIA
TRANSYLVANIA
GALICIA
BAVARIA
LONDON
PARIS
BRUSSELS
THE HAGUE
BERLIN
VIENNA
BERNE
ROME
COPENHAGEN
STOCKHOLM
Longitude 10 East from 12 Greenwich
Longitude 16 East from 18 Greenwich

CHAPTER XIII.

THE BRITISH ISLES.

THE British Isles consist of Great Britain and Ireland and the small islands that surround them. They all form together the United Kingdom of Great Britain and Ireland.

The island of Great Britain includes England, Wales and Scotland.

2. **Surface.**—Scotland, Wales and the north and west of England are mountainous. The rest of England is undulating or level. Ireland is bordered by hills or low mountains, while the interior is like a basin, with a low and flat surface.

The British Isles have generally a bold and rocky coast, with many deep inlets which afford shelter to vessels from the wild storms of the Atlantic.

3. **Climate.**—The climate is moist and mild, and the grass is green in the southern districts throughout the year.

4. **Productions and Occupations.**—The manufactures of cotton, woollen, and hardware are the chief productions of Great Britain. Ireland is mainly engaged in farming and grazing.

Vegetable Productions.—Grain is the principal vegetable production in Great Britain; flax and potatoes in Ireland. These islands, however, do not produce grain enough for home consumption.

Animal Productions.—The waters of the British Isles swarm with herring, cod and salmon. The finest breeds of horses, cattle and sheep are raised on the high lands and rich meadows: those of England being especially famous.

Mineral Productions.—Great Britain furnishes most of the tin, and nearly one-half the coal, used by mankind. The coal-fields, though small, are the richest in the world. Iron, copper and zinc are also abundant. The tin mines are in Cornwall, a county in the south-west peninsula of England.

5. **Inhabitants.**—The English and Scotch are Protestants. Most of the Irish are Roman Catholics.

The peasantry of the British Isles, and the lower classes in the large towns, are generally poor, and (except in Scotland) uneducated.

6. **ENGLAND** is a beautiful country. The hills, mountains and plains are clothed with the richest grass, and decked with the brightest flowers. The land is cultivated like a garden, and is adorned with stately palaces and cathedrals, grand old castles and picturesque cottages.

The leading employments are mining, manufacturing and commerce. England is the greatest manufacturing country in the world.

The commerce is more extensive than that of any other country, and consists mainly in the export of manufactured goods, and the import of the materials of which they are made. More than half the commerce of England is with the United States.

Towns.—London, the capital of the kingdom, contains about three and a half millions of people. It is the largest city in the world, and the first in commercial importance.

In the central and northern parts of England are many great manufacturing cities. Among them are Manchester, famous for its cotton goods, Leeds for woollens, Sheffield for cutlery, and Birmingham for hardware.

Liverpool is the outlet for these manufactures, and receives the materials of which they are made. It is the second commercial city in the kingdom.

7. **SCOTLAND.**—The Scottish Highlands, so famous for their rugged mountains and beautiful lakes, are north of the Grampian Hills. The country south of the Highlands, and along the eastern coast, is called the Lowlands, although the surface is generally hilly and broken.

Towns.—The manufacturing towns are in the Lowlands. Glasgow, the largest, is a great manufacturing and commercial city, and contains about 540,000 inhabitants. Edinburgh (*ed'-in-bur-ruh*) is the capital.

8. **IRELAND** has a great abundance of rain, and is called the "Emerald Isle" because the vegetation is so fresh and green.

As the coast is bordered by hills, the water collects in the interior and forms immense marshes called *peat bogs*, which are unfit for cultivation. The turf which is cut from them forms, when dried, the principal fuel of the people, for wood and coal are scarce.

Irish linen is the best that is made, and is the leading manufacture of the island.

Towns.—Dublin is the capital and largest city. Belfast is the principal commercial place.

9. The ***British Empire*** includes the British Isles, extensive territories in America, Africa, Asia and Australia, and numerous islands in every part of the world.

Questions on the Map and Text.

England and Wales.—Name the seas, straits, channels and bays around the coast, in their order. The islands. The capes. Describe the surface. The coast. Where is Pennine Chain? Mt. Skiddaw? Helvellyn? The Cambrian Mountains? Mt. Snowdon? Plinlimmon? Name the rivers which flow into the waters upon the eastern coast. The western.

Name the towns on the eastern coast. On the southern. The western. Name the towns not included in the foregoing, which lie north of the centre—that is, north of latitude fifty-three degrees. Name those south of this parallel. What do you know of London, Manchester, Birmingham, Sheffield, Leeds, Liverpool?

Scotland.—Name the firths (or *friths*) in their order. The capes. What canal connects Moray Firth with the western coast? All the islands on the west coast are included under the name of the Hebrides. Name the principal islands of which this group is composed, from south to north. What group on the northern coast? In what direction from the Orkneys are the Shetland Islands?

In what general direction do the mountain-chains extend? Which of them separates Scotland from England? What is the boundary of the Highlands? Name the Highland lakes (or lochs). Are the following mountains among the high lands or low lands—Ben Nevis? Ben Lomond? Ben Wyvis? What river flows into the western coast? The eastern? What river flows from Scotland into England?

Where is manufacturing carried on? Where is Glasgow? Edinburgh? Dundee? Aberdeen? Paisley? Inverness? Leith? Greenock? What do you know of Glasgow? Edinburgh? Are most of the towns on the high lands or the low lands?

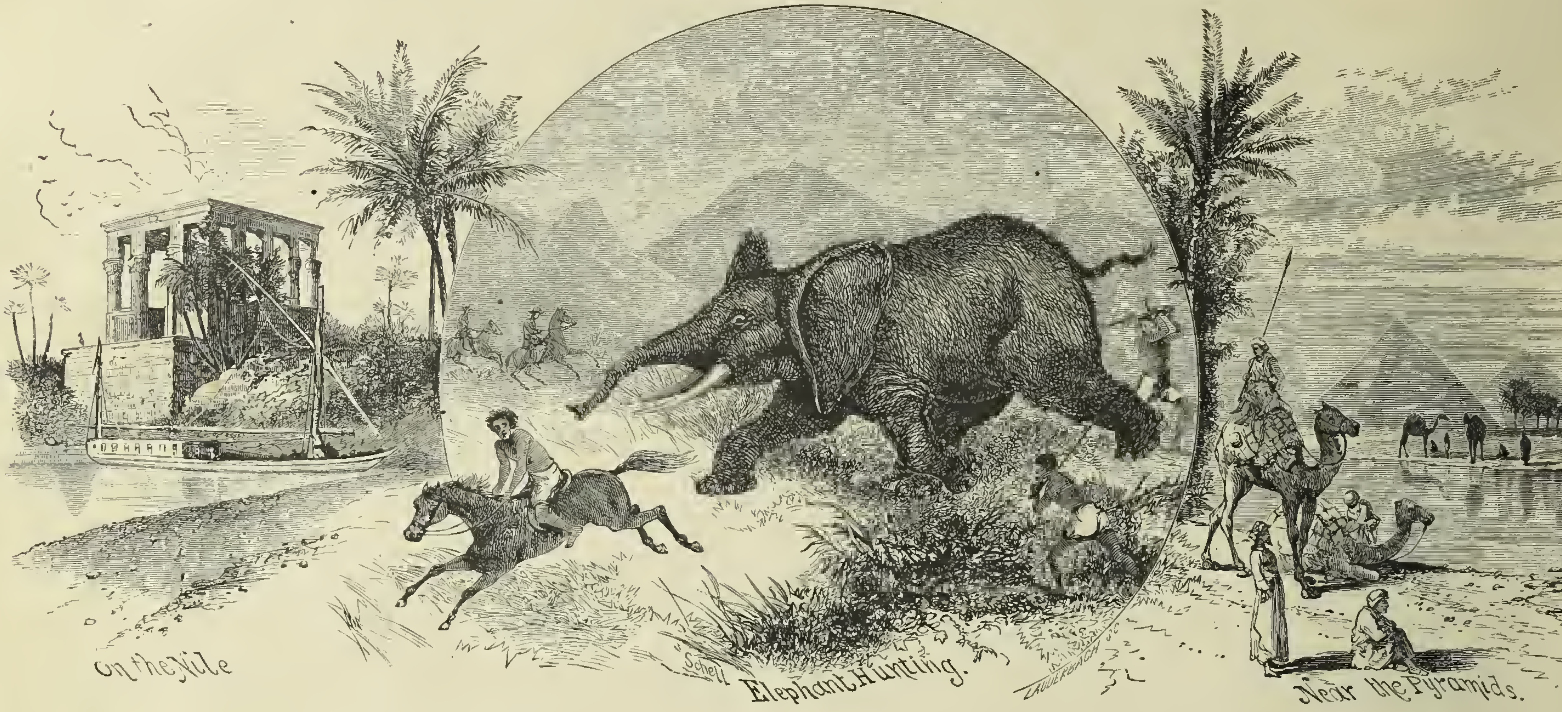
Ireland.—What ocean on three sides? How is Ireland separated from Wales? England? Scotland? What bay on the eastern coast? What four on the western? Where is Cape Clear? Malin Head? Where are the mountains? What lakes or loughs (*locks*) in the north? In the centre? What one in the south-west? In the west?

Describe the Shannon. Where is the Giants Causeway? Valentia Island? What is manufactured in Ireland? How are the bogs formed? Of what use are they? What makes Ireland so fresh and green?

Where are Dublin, Belfast, Cork, Limerick, Londonderry, Galway (*gawl'-way*), Sligo, Queenstown?

Miscellaneous.—What islands form the kingdom of Great Britain and Ireland? What countries form the island of Great Britain? What is the British Empire? How far is it from Dover to Calais? Which coast of the British Isles is bordered by the most islands—the eastern or the western? For what animals is England famous? Why do they use peat for fuel in Ireland? Why do these islands import grain? Name the Channel Islands. Near what coast are they?

THE BRITISH ISLES
Scale 60 Statute Miles to an Inch.
5 10 15 20 25 50 75 100 125
ATLANTIC OCEAN
NORTH SEA
IRISH SEA
ENGLISH CHANNEL
ST GEORGES CHANNEL
NORTH CHANNEL
BRISTOL CHANNEL
CARDIGAN BAY
SCOTLAND
ENGLAND
IRELAND
WALES
HEBRIDES
The Shetland Islands
ORKNEY ISLANDS
Pentland Firth
Cape Wrath
THE MINCH
LITTLE MINCH
LEWIS
North Uist
South Uist
SKYE
Rum
MULL
Staffa
Iona
JURA
ISLAY
ARRAN
L. Shinn
Dornoch Firth
Moray Firth
Ben Wyvis
Inverness
Caledonian Canal
Kinnaird Head
Aberdeen
Ben Nevis
Grampian Hills
R. Tay
Dundee
Firth of Tay
Ben Lomond
Firth of Forth
Leith
EDINBURGH
Glasgow
Greenock
Paisley
Clyde R.
R. Tweed
Firth of Clyde
Cheviot Hills
Malin Head
Londonderry
Lough Neagh
Belfast
Donegal Bay
L. Erne
Sligo
Dundalk Bay
Lough Ree
Lough Corrib
Galway
Galway Bay
Shannon R.
DUBLIN
Lough Derg
Limerick
Dingle Bay
Valentia Id
Lake of Killarney
Cork
Queenstown
Bantry B.
Cape Clear
Solway Firth
Isle of Man
New Castle
Tyne R.
Durham
Pennine Chain
Mt. Skiddaw
Mt. Helvellyn
Lancaster
Flamborough Head
Leeds
Hull
Ouse R.
Humber R.
Manchester
Liverpool
Mersey R.
Sheffield
Trent R.
Derby
THE WASH
Anglesea
Holyhead
Menai Strait
Caernarvon
Mt. Snowdon
Cambrian Mountains
Mt. Plinlimmon
Leicester
Birmingham
Yarmouth
Kidderminster
Severn R.
Avon R.
Great Ouse
Cambridge
St. Davids Head
Oxford
Thames R.
Richmond
LONDON
Greenwich
Windsor
Margate
Merthyr Tydfil
Swansea
Cardiff
Bristol
Dover
22 Miles
STRAIT OF DOVER
Calais
Boulogne
FRANCE
Southampton
Portsmouth
Isle of Wight
Brighton
Beachy Head
Portland Bill
Plymouth
Lands End
Scilly Ids.
Lizard Pt.
THE CHANNEL ISLANDS.
Scale 66 Miles to an Inch.
Cape de la Hague
Alderney Id.
Cherbourg
Cotentin Peninsula
Guernsey Id.
Jersey Id.



CHAPTER XIV.

AFRICA.

[To the Teacher.—*Please read the Suggestions, page 3.*]

OUTLINE.—Africa is shaped somewhat like South America, and has a very regular outline. No seas, gulfs or bays extend into the interior, affording an easy entrance to the heart of the country.

This is one reason why we know so little about the central regions. In order to reach them the traveller must make long overland journeys under a burning sun, exposed to the deadly African fever, and to the hostility of the natives.

2. The **Surface** consists chiefly of a great plateau, bordered by mountain-chains.

The coast is low, but the only low land yet known in the interior is the country around Lake Tchad. The loftiest mountain-peaks are Kenia and Kilima-Njaro, which are volcanoes about 20,000 feet high.

3. **Rivers and Lakes.**—The principal rivers are the Nile, the Congo, the Niger and the Zambesi. All these except the Niger rise in the central plateau between the equator and 12° south latitude.

The Nile is one of the longest rivers in the world, and the Congo is one of the largest. The latter is said to discharge three times as much water as the Mississippi.

In 1877 Henry M. Stanley, the great African explorer, made a long and perilous journey across Africa, and ascertained that the Lualaba River and Lake Bangweolo are the headwaters of the Congo River.

The sources of the Nile are Albert and Victoria Nyanzas. Its most important tributaries are the Blue Nile and the Atbara (*at-bah'-rah*), which rise in the lofty plateau of Abyssinia. In the rainy season they are furious torrents, washing away the banks, and carrying down vast quantities of soil. When these waters reach the lower part of the Nile, they overflow its banks and spread this fine fertile soil over the land.

Lakes Tchad and Tanganyika are very large lakes, which have no known outlet.

4. **Climate.**—Africa lies almost entirely in the Torrid Zone, and contains about one half of all the land in that zone; it is the hottest and dryest of the Grand Divisions. Excepting the northern and southern extremities, the climate is tropical throughout the whole extent.

The dryness of the interior is perhaps owing to the lofty mountains near the coast, which partly exclude the moisture of the ocean winds. South of the Atlas Mountains lies a desert plateau almost as large as the United States. It is called the Sahara, and consists of gravel, sand, or salt, crossed by mountains of naked rock.

Rain occasionally falls upon the borders and upon the mountains of the interior, producing springs of delicious water, and a growth of rich grass, with clusters of the date-palm and gum tree. These fertile tracts are called ***Oases.***

Upon the rest of the Sahara showers fall only at intervals of five, ten, or twenty years. If they were frequent and abundant, plants would begin to grow and the barren sand would in time be changed to a fertile soil.

5. The **Vegetation** is tropical, except in the northern and southern extremities, where the plants are those of the warm-temperate zone.

Besides the date, sago, and cocoa-nut palms, there is the wine-palm, from which wine is made; the oil-palm, from whose nut oil is pressed; and the ivory-palm, yielding a smooth, white nut resembling ivory.

Gum Arabic, obtained from the acacia tree, is one of the principal exports. The plaintain, the banana, and the tamarind are abundant in nearly all parts of Africa; and the mulberry, orange, lemon, fig, and olive, on the Mediterranean coast.

Extensive forests of the coffee tree grow wild in Abyssinia, and it is largely cultivated at the Cape of Good Hope. Among the cultivated plants are cotton, indigo, rice, wheat, maize, millet, dhoura (a kind of grain), yams, manioc and spices.

6. **Animals.**—No other country in the world has so many large and ferocious animals as Africa.

The carnivorous, or flesh-eating, quadrupeds are the lion, leopard, panther, and hyena. The lion is called the "king of beasts;" but he is a cowardly creature, and a much less dangerous animal for the hunter to encounter than the elephant, the rhinoceros, or the buffalo.

The herbivorous, or plant-eating, quadrupeds are the elephant, rhinoceros, hippopotamus (or river-horse), the giraffe, the buffalo, the antelope, the swift-footed gnu (or horned-horse), and the beautiful zebra.

The largest bird in the world is the ostrich, a native of the sandy deserts of Arabia and Africa. The apes of Africa are the baboon, chimpanzee, and gorilla.

Crocodiles, lizards, serpents, and insects are common here, as in all tropical countries. The termites, or white ants, build turret-shaped houses, from twelve to thirty feet high, with walls which are strong enough for men to stand upon.

7. Inhabitants.—Africa, south of Soudan, is peopled by negroes, who generally live in settled villages, and support themselves by agriculture or the raising of cattle.

Some of the tribes make cotton cloth, leather goods and earthen ware, and work in iron and other metals. The Ashantees are skilful goldsmiths, and manufacture swords of superior quality.

The lowest of the negroes are a tribe of Hottentots called Bushmen. They are miserable creatures about four and a half feet high, with ugly yellow faces and stooping forms. They dwell in caves, live on roots and the cattle they steal, and are hunted like wild beasts by all the neighboring tribes.

On the other hand, the Kaffirs and many other African nations are tall, well-formed, intelligent people, with a brown complexion and agreeable features. Where they have not been hunted by slave-traders, or ill-used by Europeans, they are kind-hearted and friendly.

The native African negro has no idea of a God. He believes in witchcraft, and worships idols, serpents, crocodiles, and the spirits of his dead relations.

The tribes are constantly at war with each other, and the prisoners taken in battle become the slaves of their captors.

8. The country north of Soudan is occupied by civilized people of the white race,—Arabs, Egyptians, Turks, and Berbers. They are Mohammedans, and speak the Arabic language.

NEGRO WAR DANCE.

9. Soudan is the common ground where both races meet, the negroes and Arabs mingling together.

10. Commerce.—Ivory, gold-dust, ostrich-feathers, palm-oil, and gums are exported from nearly all the ports of Africa.

From the Barbary States are also exported morocco leather; from Egypt cotton, rice, wheat and senna; from Cape Colony wool, coffee, diamonds, wheat and wine.

11. Countries.—The most important and interesting countries of Africa are *Egypt*, the *Barbary States*, *Soudan* and the *Cape Lands*.

Questions.—Why must the traveller journey *overland* in order to reach the interior of Africa? What difficulties are encountered? What part of the surface is low? What lakes furnish the Nile with most of its waters? Of what use are the Blue Nile and the Atbara?

How does the climate compare with that of the other Grand Divisions? What is the general character of the climate? Why is the northern part of Africa a desert? What produces the oases? Name all the food-plants of Africa. All the others, giving their uses. Name all the trees. All the plants which are not trees.

Let each scholar name one of the African quadrupeds, telling all he knows about it. Describe in the same way the other animals. What animals live in the rivers and lakes? What animals have horns? What one has tusks?

What part of Africa is occupied chiefly by negroes? By whites? By both races? Tell what you know of the negro tribes. Name the animal productions which are exported. The mineral. The vegetable.

12. EGYPT, which is one of the oldest and most famous countries in the world, owes its importance entirely to the annual overflow of the Nile. But for this, the country would be a desert, for rain scarcely ever falls in Egypt, south of Cairo (*ki′-ro*).

The Turks are the governing race, and form the aristocracy. The Fellahs, or peasantry, are supposed to be descendants of the ancient Egyptians. They are a tall, strong, graceful people, and remarkably industrious.

Cairo is the capital. Alexandria, the principal seaport, is a large and growing city. Port Said (*sah-eed*) and Suez are at the ends of the Suez Canal, through which ships sail from Europe to Asia.

The dominions of the Khedive (as the monarch of Egypt is called) include Egypt, Nubia, Kordofan, Darfur and the country near the banks of the Nile as far as the sources of that river.

13. The **BARBARY STATES** are inhabited by Berbers, Arabs (called Moors), Turks and Jews.

The Empire of Marocco is independent. Algeria belongs to France: Tunis, Tripoli and Barca to Turkey.

The word "Barbary" is derived from the *Berbers*, who were the inhabitants of the country when it was conquered by the Arabs hundreds of years ago.

The people carry on a caravan-trade with Soudan, by means of the camel. They exchange European goods and their own manufactures for slaves, ivory, gums, feathers and gold-dust.

These caravans are often destroyed by thirst, by sand-storms, or by the bands of robbers who roam over the deserts.

14. SOUDAN is a very fertile region, occupied by a large population of Arabs and negroes, divided into many tribes or nations. The negroes here are the most intelligent in Africa. Great numbers of them are Mohammedans.

There are many large cities in Soudan, which are centres of the caravan trade with the Barbary States. Kano, Sokoto, Kouka and Timbuctoo are the most important.

15. SIERRA LEONE (*le-o′-ne*) is a British colony established as a place of refuge for liberated slaves.

16. LIBERIA is an independent negro republic, founded by our own government. The civilized inhabitants are colored people from America.

17. ASHANTEE and **DAHOMEY** are extensive and powerful negro kingdoms. They are occupied by a warlike and ferocious people, whose love of shedding human blood is almost beyond belief.

When the king of Ashantee dies, a thousand of his wives and slaves are put to death.

Coomassie, the capital of Ashantee, is a large town, laid out with rectangular streets.

The king of Dahomey has regiments of women in his army.

18. The **PORTUGUESE POSSESSIONS** consist of numerous trading-posts in Lower Guinea, and on the east coast between Delagoa Bay and Cape Delgado.

St. Paul de Loanda is the capital of the western settlements.

19. CAPE COLONY, NATAL and the **TRANSVAAL COLONY** are British possessions, inhabited by Englishmen, Dutchmen, and negroes.

Cape Colony is, in general, too dry for agriculture, but is well adapted to stock-raising. Wool is the chief export. Cape Town is the principal city.

20. The **ORANGE RIVER FREE STATE** is governed by Dutch farmers, called boers.

Cape Colony formerly belonged to Holland. When it fell into the hands of the British, great numbers of the Dutch residents moved away, and established two independent states, the Orange River and the Transvaal Republic, the latter of which has recently come under the control of Great Britain.

21. ZANGUEBAR belongs to the sultan of Muscat, whose capital is Zanzibar on Zanzibar Island.

22. ABYSSINIA is a mountain kingdom, inhabited by a people who belong to the white race. Their religion is a degraded form of Christianity.

Questions.—*Egypt.*—What prevents the valley of the Nile from being a desert? Name the exports. Who are the inhabitants? What is their language? Religion? What gives importance to Alexandria? To Suez? To Port Said? To whom does Nubia belong? Kordofan? The country between Kordofan and the great lakes?

Barbary States.—Who conquered the Berbers? What is the religion of the Turks, Moors and Berbers? The language? What animal is used in crossing the Sahara? What goods are carried to Soudan? What are brought back? What dangers are encountered on the way?

Soudan.—Describe the population. What produces large cities here? Name the most important.

S. Leone.—Who founded this colony? What for?

Liberia.—What is the government? Who are the civilized people?

Ashantee and *Dahomey.*—What is the character of the people? What do the Ashantees manufacture?

Portuguese Possessions.—Where are the Portuguese trading-posts? What do the Portuguese receive from the interior? What do they export? As the climate is so dangerous to white men, do you suppose these white settlements are very populous?

Cape Colony, Natal and the Transvaal Colony.—To what European power do these countries belong? Why is not agriculture the leading business in Cape Colony? What are the exports of Cape Town?

Orange River Free State.—Who are the civilized inhabitants? Where did they come from?

Zanguebar.—To whom does it belong? Where are his other possessions? (*See Arabia, page 73.*)

Abyssinia.—Describe the surface. What rivers rise there? To what race do the people belong? What is their religion?

QUESTIONS ON THE MAP OF AFRICA.

Position and Outline.—Bound Africa. In what zone is most of it? The northern extremity? The southern? Name, in order, the gulfs, straits, bays and bights. The capes. Name the most eastern cape; southern; western; northern. What great island east of the southern part? In what direction do its mountains extend? Between what two capes?

What islands near Madagascar? What islands north-west of Africa? What groups near the north-western coast? In which group is the Peak of Teneriffe? Where is Ascension Island? St. Helena? Fernando Po? To what countries do the above islands belong?

Surface.—Mountain-ranges follow the coast of nearly the whole of Africa, enclosing the great plateau which occupies the interior. Name those which follow the Mediterranean coast. The coast of Guinea. What mountains cross Cape Colony from west to east? What ranges follow the eastern coast, from the Snow Mountains to the Plateau of Abyssinia? What two peaks in this eastern system, east of Victoria Nyanza?

Where is the Sahara? The Nubian Desert? The Kalahari (*kah-lah-hah′-re*) Desert?

The **Lakes and Rivers** belong to four systems.

Mediterranean System.—What two great lakes are nearest the Equator? [*Nyanza means lake.*] By what river and over what falls does Victoria Nyanza flow into Albert Nyanza? What river flows northward from Albert Nyanza?

In what country is the White Nile joined by the Blue Nile? What river flows from the Abyssinian Plateau into the Nile? The Blue Nile also rises in that plateau; in what direction does it flow? Through what countries does the Nile flow below the junction of the White and the Blue Nile? Into what sea?

Atlantic System.—Name in order the rivers which flow into the Atlantic. In what direction does the upper part of the Congo (called the Lualaba) flow? What lake has recently been discovered to be the source of the Congo? What river flows into the Orange?

Indian System.—Name the rivers from north to south. Which is the largest? Into what river does Lake Nyassa flow? What falls are in the Zambesi (*zahm-bay′-ze*)?

Interior Systems.—What lake in the centre of Soudan? Where is Lake Tanganyika? (*These lakes have no known outlet.*)

Countries and Towns.—*Egypt.*—Describe the position of Egypt. Of Nubia. Kordofan. What desert on the left bank of the Nile? On the right bank? At what town do you find the first cataract in ascending the river?

Where is the Suez Canal? The town of Suez? Port Said? Alexandria? What three cities at the mouths of the Nile? Ascend the river from Damietta to Albert Nyanza, naming the towns and describing their situation. Where are the Pyramids? The Ruins of Thebes?

Barbary States.—Name them from west to east. What desert on the south? Where is Beled el Jerid, or the "Land of Dates"? Barca? Fezzan? The city of Marocco? Fez? Mequinez? Algiers? Tunis? Tripoli? Mourzouk?

Soudan and Central Africa.—Name the principal cities of Soudan from east to west What two cities on the Congo River? Where is Ujiji?

Western Coast.—Name the countries, from Cape Verde to Cape Palmas. Where is Free Town? Monrovia? Guinea extends from Liberia to Cape Frio:—name its divisions, from north to south. What countries north of the Gold Coast? Where is Cape Coast Castle? Coomassie? Abomey? Loango? San Salvador? St. Paul de Loanda?

The Cape Lands.—What river forms the northern boundary of Cape Colony? Between what two rivers does the Orange River Free State lie? The Trans Vaal Colony? (*Trans Vaal means beyond the Vaal.*) Caffraria, or Kaffir Land, is bounded by what states? Where is the country of the Zooloos? Where is Cape Town? Graham Town? Port Natal?

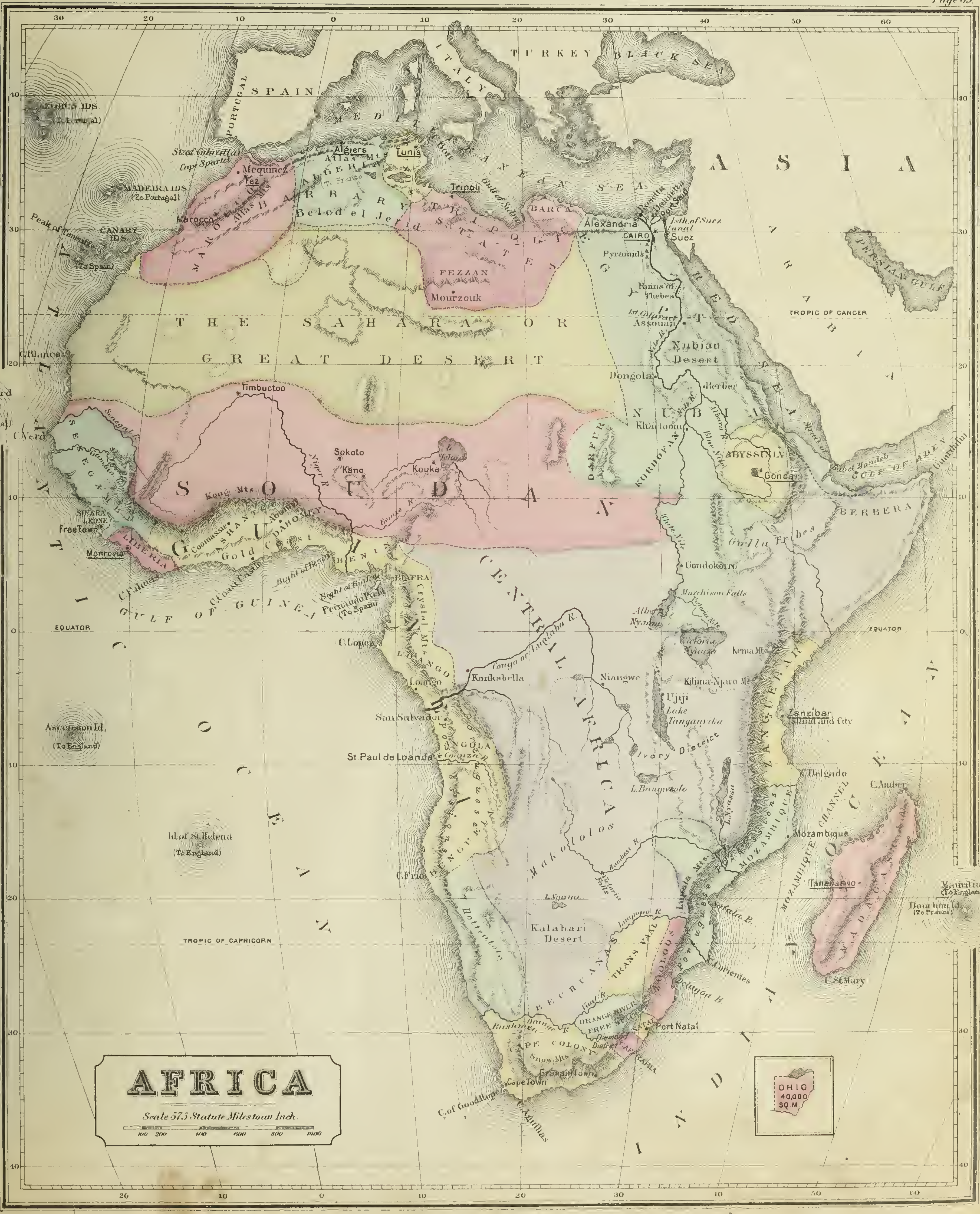
Eastern Coast.—To whom does the country between Delagoa Bay and Cape Delgado belong? Where is the town of Mozambique? Where is Zanguebar? Zanzibar Island and City? Where is Abyssinia? Gondar?

Interior Tribes.—Where are the Galla tribes? The Makololos (*mah-ko-lo′-los*)? Bechuanas (*bet-choo-ah′-nas*)? Hottentots? Bushmen?

Questions on the Map and Text.

Name the countries on the coast, in their order. The towns. The rivers and lakes which flow into the sea. Name the countries in which Arabic is spoken. English. French. Portuguese. Dutch.

Which is nearest the mouth of the Nile—Upper or Lower Egypt? Is the *lower* part of the Nile at the south or at the north? Is Egyptian cotton sent to America, or to Europe? What do you suppose is meant by "cape wool" and "cape coffee"? Ship a cargo of muskets from Liverpool to Zanzibar—by what waters?


AFRICA
Scale 575 Statute Miles to an Inch
ASIA
TURKEY
BLACK SEA
SPAIN
PORTUGAL
ITALY
MEDITERRANEAN SEA
THE SAHARA OR GREAT DESERT
SOUDAN
CENTRAL AFRICA
GULF OF GUINEA
ATLANTIC OCEAN
INDIAN OCEAN
ARABIA
RED SEA
PERSIAN GULF
GULF OF ADEN
MADAGASCAR
MOZAMBIQUE CHANNEL
TROPIC OF CANCER
EQUATOR
TROPIC OF CAPRICORN
Algiers
Tunis
Tripoli
Alexandria
CAIRO
Suez
Port Said
Fezzan
Mourzouk
Marocco
Mequinez
Fez
Timbuctoo
Sokoto
Kano
Kouka
Khartoum
Dongola
Berber
Gondar
ABYSSINIA
NUBIA
KORDOFAN
DARFUR
BERBERA
Gondokoro
Zanzibar Island and City
Mozambique
C. Delgado
C. Amber
Tananarivo
C. St Mary
Port Natal
Cape Town
C. of Good Hope
C. Agulhas
Graham Town
Kalahari Desert
TRANS VAAL
ORANGE RIVER FREE STATE
CAPE COLONY
Monrovia
LIBERIA
Free Town
SIERRA LEONE
Coomassie
ASHANTEE
DAHOMEY
Gold Coast
BENIN
BIAFRA
C. Lopez
Loango
San Salvador
St Paul de Loanda
ANGOLA
BENGUELA
C. Frio
Ascension Id. (To England)
Id. of St. Helena (To England)
MADEIRA IDS (To Portugal)
CANARY IDS (To Spain)
C. Blanco
C. Verd
OHIO 40,000 SQ. M.

CHAPTER XV.

ASIA.

[To the Teacher.—*Please read the Suggestions, page 3.*]

OUTLINE.—There are many large seas and gulfs upon the coast, but they do not extend far into the interior.

2. **Surface.**—The central and southwestern regions consist of immense plateaus, bordered and crossed by lofty mountains.

3. North and west of this high land lies a great plain, which extends to the Arctic Ocean and the Caspian Sea.

4. All the peninsulas which branch off from the main body of Asia are occupied by low plateaus or mountain-chains, and the islands upon the coast are generally mountainous and volcanic.

The Himalayas are the highest mountains in the world. The loftiest summits of the range are Everest, Dhawalagiri (*dah-wol-ah-ghe'-re*), and Kunchinginga (*koon-chin-jing'-gah*), which are about 29,000 feet (almost five and a half miles) high.

5. **Lakes and Rivers.**—The most important rivers are those which water the plains of Hindoostan, Indo-China, and China; for these are the most fertile and populous countries in the world.

The Yang-tse Kiang and Yenisei are the greatest of the Asiatic rivers, and are nearly as long as the Mississippi.

6. The Caspian Sea and Sea of Aral, which are shallow and salt, are the largest lakes in Asia. The Caspian is nearly five times the size of Lake Superior, and is the greatest lake in the world.

There are many smaller salt lakes scattered over the highlands. The Dead Sea is a salt lake whose surface is 1300 feet below the level of the Mediterranean. The largest of the fresh-water lakes are Balkash (*bahl-kahsh*) and Baikal (*bi'-kahl*).

7. **Climate.**—Southern Asia (which lies south of the southern mountain-chain) has a tropical or warm-temperate climate. Northern Asia consists of the Arctic Slope, and has an Arctic climate. Central Asia has the climate of the Temperate Zone.

The southern and eastern slopes are exceedingly fertile, for they receive the warm, moist winds from the Pacific and Indian Oceans.

The plateaus and interior plains are deprived of this moisture by the mountain-chains, which rise like great walls along their borders. They are therefore generally dry and barren, and contain extensive deserts of sand, salt, and gravel.

8. **Animals.**—Among the most important domestic animals are the elephant, camel, and reindeer. Besides these there are the horse, ox, buffalo, sheep, and goat, which are supposed to have originated in Central Asia.

The elephant is found in India and the southern part of China. He is used for riding and for drawing heavy burdens. But elephants also roam wild, in great herds, through the dense forests and jungles of those countries.

The camel is never found wild. He is used in all the desert regions of Central and Southern Asia, and is so necessary in crossing these immense wastes that he is called by the Arabs the "ship of the desert."

The reindeer furnishes the native tribes of Siberia with all the necessaries of life. He draws them in sledges over the frozen snow; his flesh is their food; and their tents and clothing are made of his hide.

9. The wild beasts in the warmer parts of Asia are the elephant and rhinoceros; the tiger, lion, leopard, and others of the cat tribe; the wild dog, hyena, and jackal, which belong to the dog family.

The tiger belongs solely to Asia. He is never found as far west as Persia, but wanders north, even to the Altai Mountains. In Siberia are the reindeer, the wolf, the fox, a dangerous kind of bear, and great numbers of the smaller fur-bearing animals.

10. The hot, moist lowlands abound with dangerous serpents, beautiful birds, and annoying insects. The crocodiles, which infest the rivers, are very numerous and fierce.

Even as far north as the Arctic coast, the marshes in summer breed swarms of mosquitoes, which are as great a pest as those of the Amazon Valley.

11. Inhabitants.—The people of Asia (including the Malay Islands) belong to four races: the Caucasian, Malay, Negro, and Mongolian.

1. The whites, the Hindoos, and the people of the south-western table-lands are Caucasians.

2. The Malay, or Brown Race, is found in Malacca and the Malay Islands.

3. The Negroes are found in most of the Malay Islands.

4. The Mongolian race has spread from Mongolia over the central and eastern parts of Asia, including Indo-China, the Chinese and Japanese Empires, and East and West Turkestan.

The people of this race are shorter than the whites. They have a yellow skin, straight black hair, flat noses, and small black eyes set obliquely.

12. Religion.—The Malays and inhabitants of the south-western plateaus are Mohammedans. The religion of Hindoostan is called Brahmanism, Brahm being the Hindoo name for the Supreme Being. The Mongolian race are generally the followers of Boodha, a teacher of religion who lived in Hindoostan 500 years before Christ.

Boodhism has more disciples than any other religion in the world. Among the Hindoos and Boodhists the educated classes acknowledge only one god, but the mass of the people are idolaters, and worship many gods.

13. Countries.—India, China, and Japan, are warm, moist, and fertile. They are thickly settled, and contain many great cities. The other countries are, in general, too cold or too dry to support a dense population.

VIEW OF BANGKOK.

Questions.—Where are the plateaus? Describe the surface north and west of them. The surface of the peninsulas and islands. Where are the most important rivers? Why are they the most important? Name them. Which is the most useful, the Hoang-Ho or the Yenisei? What part of Asia is fertile? Barren? Why?

Name the domestic animals. The wild beasts. What do you know about the elephant? The camel? The reindeer? The tiger? Is the tiger found in Arabia? What animals belong to the cat tribe? The dog family? What animals are found in Siberia? In the tropical lowlands? What causes the mosquitoes in Siberia?

To what race do the whites belong? The Hindoos? Name the countries of the south-western table-lands. To what race do the people belong? Where is the Mongolian race found? What two races are found in the Malay Islands?

What is the religion of the Hindoos? Of the Arabs and Persians? Turks? Of the Mongolian race? Are all the Hindoos and Boodhists idolaters?

---

14. *Hindoostan, Indo-China,* and the *Malay Islands* are called India, or the East Indies. They are tropical countries.

Hindoostan, the west coast of Indo-China, and some colonies in the Malay Islands belong to Great Britain, and are called British India.

15. HINDOOSTAN exports great quantities of cotton, rice, silk, opium, indigo, sugar, and spices.

Among the other productions are coffee, tobacco, sago, and such tropical fruits as dates, cocoa-nuts, bananas, etc. Rice and millet (a kind of grain) are the principal food of the people. Tea has, within a few years, been successfully raised and largely exported.

One of the most useful plants is the bamboo, a stout reed sixty or a hundred feet high. It grows luxuriantly throughout India, China, and Japan, and is used for water-pipes and for making boats, bridges, houses, and many other things.

The principal manufactures are India muslins and the famous Cashmere shawls.

16. The excessive growth of the population is somewhat checked by occasional famines, and by the fevers, tigers, and serpents, which destroy great numbers of people on the hot, low plains.

Every year thousands of persons are killed by the tigers, and in the single province of Bengal from 10,000 to 20,000 lives are annually lost by the bite of snakes.

17. *Towns.*—Calcutta, the capital and largest city, is on the Hoogly River, one of the mouths of the Ganges. It contains nearly 900,000 people, and is the second commercial city of Asia.

Bombay is the second city of Hindoostan, and contains nearly 650,000 inhabitants.

18. INDO-CHINA, or FARTHER INDIA.—The western coast forms a part of British India. The rest of the country is divided into several native states, of which the most important are the empire of Burmah and the kingdoms of Siam and Anam.

The productions are like those of Hindoostan, but they are not so largely exported, for the people have little intercourse with Europeans.

19. *Towns.*—Bangkok, the capital of Siam, is the largest city of Indo-China, and contains about half a million people.

Bangkok is a floating city, for most of the houses are built upon rafts, which line both banks of the great river Meinam (*may-e-nahm'*) for several miles. At night the town is illuminated by countless numbers of beautiful lanterns of every color and form, and looks like a fairy scene.

20. The **MALAY ISLANDS** (sometimes called Malaysia) lie between Asia and Australia. They are generally mountainous and volcanic; and are subject to earthquakes and volcanic eruptions.

The inhabitants are generally savages, but many of the Malays cultivate the soil or lead a seafaring life. Some of these eastern seas are infested by Malay pirates.

21. The Philippine Islands belong to Spain. The rest are either wholly or partly in the possession of the Dutch. Java is the most populous and cultivated of the Malay islands. It exports immense quantities of coffee, sugar, rice, spices, and other tropical productions.

22. *Towns.*—Batavia is the principal seaport of Java, and is the capital of the Dutch possessions. Manilla, the capital of the Philippine Islands, is the largest city in the archipelago, and exports the well-known Manilla cordage and cigars.

VIEW IN CHINA. LAKE THAI-HCU.

23. **THE CHINESE EMPIRE** includes *China* and *Mantchooria*, on the eastern slope; *Thibet* (*ti'-bet*), *Mongolia*, and *East Turkestan* on the Central Plateau; and the tributary kingdom of *Corea*.

24. ***China*** includes the great plains of the Yang tse-Kiang and Hoang-Ho, and the mountain-lands south and west of them.

These two mighty rivers and their branches are united by numerous canals. Tho rivers and canals are thronged with boats, and are the principal roads of the country.

On the plains and lower mountains every foot of land is highly cultivated, for the population is more crowded than that of any other country in the world. More than two millions of people are obliged to live in houses built upon rafts which float on the rivers and canals.

25. The principal exports are tea, silk, and rice; but the usual products of warm-temperate countries (such as cotton, tobacco, and sugar) are raised in abundance.

The Chinese work with exquisite skill in ivory, wood, and pearl, and make the most beautiful porcelain, crape, and flowered silk.

26. *Towns.*—No country in the world has so many great cities as China. Pekin, the capital, has 1,650,000 inhabitants. Canton, the most important seaport of Asia, contains about 1,000,000.

27. ***Mantchooria*** is a cold, mountainous region, covered for the most part with gloomy forests. That part of the country which lies north of the Amoor River belongs to Russia.

28. ***Thibet*** occupies the loftiest part of the Central Plateau, and is the highest country in the world. It is too cold for agriculture, and the people live, mainly, by their flocks and herds.

In Lassa, the capital, resides the Grand Lama, who is the head of the Boodhist religion. He is worshipped as God in the form of man.

29. ***Mongolia*** occupies the eastern half of the Central Plateau. Nearly the whole country is barren, and in the centre is the Desert of Gobi, or Shamo, which means the "Sea of Sand."

On these dry, treeless plains there is no shelter from the scorching sun of summer, and the piercing wind of the long winter. The only vegetation is a coarse grass and some low bushes. Yet upon this scanty pasturage the flocks and herds of the wandering Tartar tribes subsist. By means of the camel an extensive caravan trade between China, Siberia, Thibet, and Turkestan is carried on across these dreary table-lands.

30. ***East Turkestan*** was a province of China until 1865, when it established an independent government. It was re-conquered by the Chinese in 1877, and now forms part of the Chinese Empire.

The mountain valleys are fertile and well cultivated. Caravans from the east and the west stop at Kashgar and Yarkand to exchange their goods.

31. ***Corea*** is a populous country, but is very little known to us.

32. **THE EMPIRE OF JAPAN** embraces the islands of Hondo (formerly called Nippon), Yezo (*yay'-zo*), Shikoku (*she-ko'-ku*), Kiushiu, the Liu Kiu (*lee-oo' kee-oo*) group and nearly four thousand smaller islands.

The Japanese islands are mountainous and volcanic. Hondo, the largest, is 900 miles long and 100 wide. Northern Yezo is very cold, but the southern part of the empire is semi-tropical in climate and vegetation.

Rice is the daily food of the people, together with a great variety of fruits, vegetables, and fish. The chief articles of export are tea, silk, copper, camphor, silkworms' eggs, and lacquer-work.

33. The Japanese are the most intelligent nation in Asia. They are a frank, brave, honorable, and progressive race.

STREET IN JAPANESE CITY, NEAR MT. FUJI.

Since the opening of the country to foreigners in 1858, Japan has adopted many of the arts and customs of Europe and America. Railways have been built, and a submarine cable carries telegraphic messages to London or San Francisco. The Japanese have a fine army and navy, and a national system of schools and colleges.

34. *Towns.*—Tokio, the capital (formerly called Yedo), is the largest city, and contains about 675,000 inhabitants.

Yokohama, Kobe, Nagasaki, and Hakodate are the principal ports for foreign commerce.

35. SIBERIA belongs to Russia. Only the southern districts are warm enough for cultivation, and the chief productions of the country are minerals and furs.

The mines of the Ural and Altai Mountains are of immense value, yielding gold, silver, and iron, emeralds and rubies, and many beautiful kinds of stone.

Most of the inhabitants are Russians, who are engaged in mining and commerce. Some of the native tribes live by fishing and hunting, and by trapping the fur-bearing animals.

The wandering tribes of the north subsist almost entirely upon the reindeer. Those of the south, called the Kirghis, own immense numbers of horses, camels, cattle, and sheep.

CARAVAN CROSSING A DESERT.

36. *Towns.*—The towns are small, but are well built, and the citizens enjoy in the long and dreadfully cold winters the gayety and luxury of European capitals.

Irkoutsk and Tobolsk are the largest towns. At Kyachta (*ke-ahk'-tah*) the goods are received which are brought by caravan from China to Maimatchin. They are sent to Russia by sledges in winter, and by the rivers in summer.

37. SOONGARIA, formerly a province of the Chinese Empire, now belongs to Russia. It is principally important as being the gateway of the caravan trade between Eastern and Western Asia.

38. WEST TURKESTAN consists of several states called khanats, each of which has a native ruler or Khan. Most of these states are subject to Russia.

In the south, the inhabitants are engaged in agriculture; but the wandering tribes, in the north and west, subsist by war and the chase, and their chief wealth is in their immense numbers of camels, horses, sheep, and goats.

39. PERSIA, AFGHANISTAN, BELOOCHISTAN, and **GEORGIA** belong to the Plateau of Iran, the greater part of which is a desert of sand or salt, very cold in winter and intensely hot in summer. Some of the lower valleys are fertile, and have the vegetation of Southern Asia and Southern Europe.

40. The chief productions are dates, sugar, rice, cotton, indigo, and tobacco. The Persians manufacture perfumes and the most beautiful carpets and shawls.

The Persians are more civilized than the Afghans and Beloochees, who are a wild, half-barbarous people. Georgia belongs to Russia. The people are remarkable for their handsome features and noble forms.

41. ASIATIC TURKEY.—The Plateau of Asia Minor is well adapted to agriculture and grazing, but the Syrian table-land and the plains of the Euphrates and Tigris are generally hot, dry, and barren.

The fertile parts of Asiatic Turkey afford the productions of Southern Asia and Southern Europe. The principal exports are raisins, dried figs, wine, and olive oil; perfumery and gums; silk, Morocco leather, beautiful shawls, and carpets.

42. *Towns.*—Smyrna is the most important seaport. Jerusalem is sacred both to Christians and to Jews, and Mecca is the Holy City of the Mohammedans.

43. ARABIA contains a central plateau which covers about half the peninsula. Central Arabia, which occupies most of this table-land, is a rich and beautiful country, with a civilized population, and numerous well-built cities, towns, and villages.

It is occupied by two extensive kingdoms—Shomer and Nejed. Hayel is the capital of Shomer, and Riad of Nejed.

This fertile country was unknown to us until a few years ago, for it is surrounded by a circle of deserts occupied by bands of wandering Arabs. Mr. Palgrave, an English traveller, penetrated the interior in 1862, and has published an account of his discoveries.

44. The coast region of Arabia has the luxuriant vegetation of the Tropics. The chief exports are dates, gums, the famous Mocha coffee, the pearls of the Red Sea and Persian Gulf.

The western coast belongs to Turkey; the southern and eastern to the sultan of Muscat; Aden to Great Britain.

Countries.—*Hindoostan.*—Name the vegetable productions. The animal. The food plants. Those used for clothing. For shelter. What dangers do the people encounter? What is meant by British India? What is the climate of the East Indies?

Indo-China.—Describe the surface. Name the rivers. The productions. Why are they not exported as largely as from Hindoostan? The animals are those which belong to the warmer parts of Asia:—name them.

Malay Islands.—Describe the surface. Climate. Productions. To what nation does Java belong? The Philippine Islands? The others? Name the exports of Batavia. Of Manilla.

Chinese Empire.—How do the people in the lowlands of China travel? Why is the land so highly cultivated? Name the productions of China. The chief exports.

Why is Thibet so cold? Why is not Mongolia as fertile as China? What commerce is carried on across the Central Plateau? What hardships are encountered?

What gives importance to Kashgar and Yarkand?

Japan.—Describe the surface. Climate. Productions. What do we obtain from Japan? What is there remarkable about the Japanese?

Siberia.—What mineral products? Animal? What trade? What districts are cultivated? How do the uncivilized portion of the people subsist? The civilized?

Soongaria.—Where is Soongaria? From what does it derive its importance?

West Turkestan.—To what plain [illegible] of it belong? Is the climate moist or dry? Where are the fertile di[illegible] e towns.

Persia, Afghanistan, Beloo[illegible]-Are they highland or lowland? Describe the soil. Clim[illegible] Manufactures. Inhabitants.

Asiatic Turkey.—W[illegible]? What [illegible] ot and barren? Wh[illegible] Arabia belongs t[illegible]

Arabia.—W[illegible] have we kn[illegible] interior to[illegible]

QUESTIONS ON THE MAP OF ASIA.

Position.—What ocean north of Asia? East? South? What Grand Division west of it? How is Asia connected with Africa? Separated from North America? Between what oceans are the Malay Islands? [*They are included within the dotted lines on the map.*]

In what zones does the mainland of Asia lie? In which hemisphere—the Northern or Southern? What peninsula extends almost to the Equator? What three are partly in the Torrid Zone? What group of islands is wholly in that zone? What is the climate of those islands? Of the southern peninsulas? Of Siberia?

Outline.—Describe the Sea of Kara, Behring Sea, Ochotsk, Japan, Yellow, China, Arabian, Red, Mediterranean, Black, Bay of Bengal, Persian Gulf, Gulf of Obe. The following gulfs are parts of what seas:—Penjinsk? Tonquin? Siam? Martaban? Cambay? Persian?

Through what waters would you pass in going from the Gulf of Penjinsk to the Gulf of Martaban, without entering any ocean? Name all the branches of the Indian Ocean. By what strait do you enter the Red Sea? The Persian Gulf?

What is the most northern cape of Asia? The most eastern? The most southern? Describe the following capes, stating on what part of the coast they are and into what water they project:—Severo, East, Lopatka, Cambodia, Romania, Comorin.

Where are the Aleutian Islands? [*They extend westward from the coast of North America, and form the southern boundary of Behring Sea.*] Kurile Islands? Saghalin? Japan Islands? Mention the latter, in their order, from north to south. Which is the largest? Where are the Liu Kiu Islands? Where is Formosa? Hainan?

Borneo (the largest of the Malay Islands) is almost in the centre of the Archipelago, and the other islands form nearly a half circle about it. What island east of it? What group east of Celebes? North of it? Name the largest of the Philippine Islands.

How is Celebes separated from Borneo? What chain of islands south of Borneo? Which is the largest of the Sunda Islands? The next?

Where are the Nicobar Islands? The Andaman? Ceylon? The Maldive Islands? The Laccadive Islands? The Islands of New Siberia? Nova Zembla Islands? Spitzbergen Islands? To what country do the last two groups belong?

Describe the Peninsula of Kamchatka (*kahm-chaht'-kah*), stating from what part of the mainland it extends, in what direction, and by what waters it is surrounded. The Corea, Indo-China, Malacca, Hindoostan, Arabia, Asia Minor.

Surface.—In what country are the Taurus Mountains? The Caucasus? The Elborz? The Hindoo Koosh? The Himalaya? The Nan-ling? All these ranges make one connected chain across the southern part of Asia:—in what direction does this Southern Chain extend? Name its parts, from east to west.

In what direction do the Belor Mountains branch off from the Southern Chain? Two chains extend eastward from the Belor Mountains:—what is the southern one? The northern?

In what direction do the Altai Mountains extend? The Altai range extends, under different names, to East Cape:—what are those names?

A great chain extends from East Cape to the Sea of Marmora, composed of the following ranges: the Stanovoi, Yablonoi, Altai, Belor, Hindoo Koosh, Elborz, Caucasus and Taurus:—in what direction does this chain extend? Name the parts of it from south-west to north-east. From north-east to south-west.

North and west of this chain lies a great plain, extending to the Arctic Ocean and Caspian Sea:—what country in the nor[illegible]part? In the south-western?

In what direction do the Khin-gan [illegible]nd? The Pe-ling? The Ural? The southern part of Hindoosta[illegible] the Deccan:—what mountains form its northern border? [illegible]?

[illegible]hain is Moun[illegible]nchinginga? Ararat? [illegible]? Desert of Scinde [illegible]

[illegible]and Khin-gan [illegible]ern? The [illegible]ns cross it,

The South-western Table-lands are the Plateau of Iran, of Asia Minor, Syria, and Arabia. The Plateau of Iran comprises Georgia, Persia, Afghanistan, and Beloochistan. In what country are the Plateaus of Asia Minor and Syria? Of Arabia?

The Lakes and Rivers belong to the Arctic, Pacific, Indian, and Interior Systems.

Arctic System.—These rivers flow over the great plain north of the Altai Mountains. Describe the Obe. Its principal branches. Describe the Yenisei. Through what river does Lake Baikal flow into it? Describe the Lena. Which way does the country north of the Altai Mountains slope?

Pacific System.—Where does the Amoor River rise? It flows around the northern end of what chain of mountains? What country does it drain? The Yang-tse Kiang and Hoang-Ho rise on opposite sides of what mountains. In what direction, and into what waters, do they flow? Describe the Cambodia. The Meinam.

Indian Ocean System.—Describe the Irrawaddy. The Salwen. Name all the rivers of Indo-China. In what direction do they flow? How are they separated from each other? In what direction do these mountain-chains extend? To what two systems do the rivers of Indo-China belong?

The Brahmaputra, Indus, and Ganges rise in the Himalaya Mountains:—which two on the northern side? Which one on the southern? Describe each of them. Describe the Nerbudda. The Godavery. The Euphrates and Tigris rise in the plateau of Asia Minor:—describe their course. Name all the rivers of the southern slope.

Interior Systems.—These consist of several lakes and rivers which have no outlet to the ocean. Describe the Caspian Sea. What rivers flow into it? Where is the Dead Sea? The Sea of Aral? What two rivers does it receive? Where is Lake Balkash? What river flows into it?

Countries and Towns.—*Hindoostan.*—Bound it. What part is table-land? Name the rivers. Where are Calcutta, Bombay, Madras, Lucknow, Benares, Delhi, Lahore, Cashmere? [NOTE.—*Hindoostan, Indo-China, and the Malay Islands, form together India, or the East Indies.*]

Indo-China or Farther India.—Bound it. What direction do the mountains and rivers follow? Where are Bangkok, Saigon, Hue (*hoo-ay'*), Singapore, Rangoon?

Malay Islands.—In what zone are they? Where are Batavia, Manilla? What constitute the East Indies?

China.—Which way does the land slope? Where are Pekin, Canton, Nankin, Shang-hai, Ningpo, Foochow, Amoy, Hong-kong, Macao (*mah-kow'*)?

To what plateau does East Turkestan belong? Where is Kashgar? Yarkand?

Thibet.—What mountains bound it? Is the surface high or low? To what great plateau does it belong? Where is Lassa?

Mongolia.—To what plateau does it belong? Where is Maimatchin?

Soongaria.—What part of the central plateau does it occupy?

Japan.—Where are Tokio, Ozaka, Kioto, Nagoya, Yokohama, Kobe, Nagasaki, Hakodate?

Siberia.—Is the surface high or low? Where are Tobolsk, Tomsk, Omsk, Yakoutsk, Irkoutsk, Kyachta?

West Turkestan.—To what great plain does it belong? Name the towns.

Georgia.—Describe the surface. What town in Georgia?

Persia.—What is the surface? Name the principal towns.

Afghanistan.—Describe the surface. Name the towns.

Beloochistan.—Is the surface high or low? Where is Kelat?

Turkey.—What two plateaus occupy the greater part? Describe the rivers. Where are Smyrna, Damascus, Mecca, Trebizond, Jerusalem, Beirout?

Arabia.—Bound it. Where are Muscat, Mocha, Aden, Hayel, Riad?

ASIA
Scale 750 Statute Miles to an Inch.
Longitude East from Greenwich
ARCTIC OCEAN
RUSSIAN EMPIRE
ARCTIC CIRCLE
NORTH AMERICA
BEHRING SEA
OCHOTSK SEA
ALEUTIAN ISLANDS
MANTCHOORIA
MONGOLIA
CHINESE EMPIRE
CHINA
COREA
JAPAN
YELLOW SEA
PEKIN
Nanking
CANTON
Hong Kong
EAST TURKESTAN
WEST TURKESTAN
KHIVA
BOKHARA
Kashgar
Yarkand
PERSIA
TEHERAN
AFGHANISTAN
HERAT
CABUL
CANDAHAR
BELOOCHISTAN
KELAT
CASHMERE
THIBET
LASSA
HINDOOSTAN
Lahore
Delhi
Lucknow
Benares
CALCUTTA
BOMBAY
MADRAS
Ceylon
BAY OF BENGAL
ARABIAN SEA
ARABIA
NEJED
Mecca
Muscat
Aden
Mocha
RED SEA
AFRICA
ASIA MINOR
BLACK SEA
CASPIAN SEA
MEDITERRANEAN SEA
Beirout
Tobolsk
Omsk
Tomsk
Irkoutsk
Yakoutsk
Kiachta
BIRMAH
MANDALAY
INDO CHINA
SIAM
BANGKOK
HUE
ANAM
Saigon
MALACCA
Singapore
SUMATRA
BORNEO
BATAVIA
JAVA
THE SUNDA ISLANDS
MALAY ARCHIPELAGO
PHILIPPINE ISLANDS
MANILLA
Formosa
TROPIC OF CANCER
EQUATOR
CHINA SEA
INDIAN OCEAN
PACIFIC OCEAN
AUSTRALIA
TROPIC OF CAPRICORN
OHIO 40,000 SQ. M.
Longitude East 90 from Greenwich
MAP OF SYRIA
Scale 230 miles to an inch
ASIA MINOR
TURKEY
MESOPOTAMIA
CYPRUS
MEDITERRANEAN SEA
Beirout
Damascus
Palmyra
Aleppo
Antioch
Jerusalem
Gaza
Dead Sea
PALESTINE
ARABIA
MAP OF THE EMPIRE OF JAPAN
Scale 365 miles to an inch
YEZO
SAPPORO
Hakodate
SEA OF JAPAN
MANTCHOORIA
COREA
TOKIO
Yokohama
Kioto
Ozaka
Kobe
Nagasaki
Kagoshima
PACIFIC OCEAN
OHIO 40 000 SQ. M.

CHAPTER XVI.

AUSTRALASIA AND POLYNESIA.

AUSTRALASIA comprises Australia and the nearest islands in the Pacific Ocean.

Papua, and the islands that surround the Coral Sea, are occupied by tribes of negro savages. **Tasmania** is a British colony belonging to Australia. It is inhabited entirely by whites, for the natives have all been destroyed.

New Zealand is a British Colony, though the settlers are, in fact, entirely independent of the mother country. They have railroads, public schools, and a democratic form of government. In the northern island, however, there are tribes of ferocious savages, who are almost constantly at war with the whites.

The *Kiwi*, a species of ostrich, without wings or tail, and with hair instead of feathers, is one of the native animals.

AUSTRALIA.

2. **Surface.**—The interior has never been thoroughly explored; but it is supposed to consist of an immense barren plain, rising gradually to the mountains on the coast.

3. **Lakes** and **Rivers.**—On account of the extreme dryness of the climate, water is scarce. Most of the rivers disappear in the dry season, and the lakes (which are generally salt) become reedy marshes.

4. **Climate** and **Vegetation.**—The northern half of the country is tropical. The southern half has a mild climate, somewhat like that of Southern Europe, and produces wheat and other grains, the vine, mulberry and olive, oranges and lemons.

5. These plants, however, were introduced by the European settlers. Hardly any food-plants were found in the country, for the natural vegetation of Australia is different from that of any other part of the world.

The trees have small narrow leaves, and but little undergrowth; so that the forests are light and open. They contain a great many flowering trees.

Among the most common trees are the beautiful fern, the acacia, and the gigantic eucalyptus, or gum tree. The eucalyptus is sometimes called the fever tree, for when it grows in wet lands it absorbs a very great quantity of moisture and thus prevents the exhalation of poisonous vapors.

The droughts in this country sometimes last for several months, or even a year, drying up the rivers, destroying flocks, and changing the land into a desert. Then suddenly the rain falls in torrents, filling up the dry beds of the rivers, and flooding the thirsty plains.

When the summer winds blow from the interior deserts, the heat is dreadful, the mercury in the thermometer rising to 130° in the shade.

6. The **Animals** are different from those of other countries. The most remarkable are the kangaroo and the platypus. The latter has the bill and webbed feet of a duck, and the body of an otter. The emu is like the ostrich, and is seven feet high.

7. **Inhabitants.**—The white settlers are Europeans. The natives belong to the Papuan race. They are smaller and more active than the African negroes, and their skin is of a dark chocolate color.

Some tribes are cannibals, and are exceedingly fierce. Others are mild and peaceable. But they are all degraded, indolent savages.

8. **Productions** and **Occupations.**—The whites are chiefly engaged in mining and grazing. Immense quantities of gold and wool are exported.

The mining region is in the Australian Alps and the valley of the Murray River. The gold-mines are the richest in the world, excepting those of California. Great quantities of copper and coal are also obtained.

9. **Government.**—Australia belongs to Great Britain, and is divided into several states called Colonies. Victoria and New South Wales are the most important.

10. *Towns.*—Melbourne and Sydney are the largest towns. Melbourne contains about 200,000 inhabitants.

POLYNESIA.

11. **POLYNESIA** is the name given to the multitude of small islands in the Pacific Ocean.

12. **Surface.**—Some of the islands are mountainous and volcanic. Others are formed by the coral polyp—a very minute creature that lives in the sea.

A coral island or atoll is a narrow strip of land rising but a few feet above the water, and enclosing a part of the ocean. It is clothed with a luxuriant vegetation of cocoa-nut palms and other plants.

13. **Climate** and **Vegetation.**—Polynesia is in or near the Torrid Zone; but the ocean breezes cool the air, and the climate is like a warm, delightful spring.

The native plants are the bread-fruit, cocoa-nut, plantain, and banana trees, the sugar-cane, yam, and cotton.

14. The **Inhabitants** are of the Malay race. In the Sandwich Islands, and some other groups, the natives have been converted to Christianity. In others they retain their savage ferocity and their practice of cannibalism.

But in all of them they are rapidly diminishing in numbers, and will, before many years, disappear from the face of the earth.

15. *Towns.*—Honolulu, on one of the Sandwich Islands, is the only important town in Polynesia.

Questions on the Map.

Australia.—Between what two oceans does Australia lie? Where is Torres Strait? Coral Sea? What islands partly enclose it? Where is Bass Strait? Name all the inlets, in order, beginning with the Gulf of Carpentaria. All the capes in order, commencing with the most northern. Where is Melville Island? Tasmania?

Where are the Australian Alps? The Blue Monntains? What mountain north of the centre? Where is the Stony Desert? Describe the Murray River. Its principal tributary, the Darling. What three lakes in the southern part of Australia?

Name the states, or colonies, and describe the situation of each. Describe the following towns, telling in what colony and upon what body of water each is situated:—Sydney, Melbourne, Ballarat, Adelaide, Hobart Town, Perth.

Australia, and the islands within the dotted lines, are, together, called Australasia: name these islands, in their order, from north-west to south-east. Which is the largest? What is the capital of New Zealand?

Polynesia.—Name the groups of islands north of the Equator. To what group do Hawaii and Oahu belong? What town on Oahu? What large group crosses the Equator, north and south? Name the groups south of the Equator. To what one does Tahiti belong?

Questions on the Map and Text.

Australia.—Is Australia in the northern or in the southern hemisphere? In what zones? Which is generally the hottest, the northern or the southern coast? Which is the coldest month in Melbourne—January or July?

Which are the hottest winds in the summer—those from the interior or those from the sea? When do the rivers dry np? What plants were introduced by the European settlers? What bad effects are produced by the droughts?

State what is remarkable about the vegetation. About the animals. Describe the natives. Where else are these negroes found? Are they civilized or savage?

How are the whites employed? What losses are sometimes incurred by the farmers and graziers? What are the principal exports? What precious metal is found? What useful minerals? Name the two largest cities. What English town in New Zealand? Who inhabit Papua and the islands around the Coral Sea?

Where are the savages of New Zealand found? What is the mother country of the white settlers? Describe the most remarkable animal.

Polynesia.—What two classes of islands are there? Describe the Coral Islands. The climate of the Polynesian Islands. Why are they not as hot as Central Africa? Describe the productions. To what race do the inhabitants belong?

CHAPTER XVII.

COMMERCE OF THE WORLD.

Most of the commerce between distant nations is carried on by sailing vessels or steamers, which cross the ocean. Steamers can usually follow a direct course, but sailing vessels are often obliged to go many hundred miles out of their way in order to find favorable winds and currents.

Winds.—On the Ocean the winds in the Torrid Zone blow steadily from the east all the year round. They are so useful to commerce that they are called Trade Winds.

The trade-winds really extend beyond the Torrid Zone to about the thirtieth degree of latitude on each side.

In the Indian Ocean the winds blow constantly from Africa to Asia between April and October, and from Asia to Africa between October and April. These winds are called Monsoons.

In the Temperate Zones the winds blow generally from the west—that is, during the greater part of the time they are from the west, north-west, or south-west.

Currents.—In many parts of the Ocean the water moves constantly in one direction, flowing like a great river through the surrounding sea. These *ocean-rivers* are called Marine Currents, and have a velocity varying from fifty to a hundred and fifty miles a day.

One of the most remarkable of the marine currents is the Gulf Stream, which crosses the Atlantic Ocean from the Gulf of Mexico to the coast of Europe.

We see, therefore, how important it is for the navigator to know where he will find favorable winds and currents, and how he may avoid those which will oppose his course.

QUESTIONS.

How is commerce between distant nations generally carried on? Which class of vessels is most dependent upon winds and currents? Which class therefore can make the shortest voyages? What sometimes prevents a sailing vessel from making a direct course?

Where is the region of the trade-winds? Why are they so called? In what direction do they blow? Are they *east* winds or *west* winds? What are the monsoons?

What is the general direction of the winds in the Temperate Zones? Which winds blow the most steadily, those of the Temperate or those of the Torrid Zone? Does the wind in the Temperate Zone ever blow from the north? From the east?

What are the marine currents like? How fast are they? Describe the most famous one. Why is it necessary for a sea-captain to understand the direction of winds and currents?

A Voyage from the Atlantic Ports of the United States to Europe.—In what zone? What winds would generally blow? Can the ship-captain be *sure* of having westerly winds? What favorable marine current may be followed in this passage? Which would probably be the quickest passage—from New York to Liverpool, or from Liverpool to New York?

Southern Route from Europe to the United States.—Trace the passage of a sailing-vessel from Marseilles to New Orleans. What favoring winds would she find? In what latitude would she first find them?

From the Atlantic Ports of Europe and the United States to Asia and Australia.—Through what belt of winds must the ship first pass? What belt follows? What belt south of the trade-winds? Around what African Cape will the vessel sail? Why does she not go around Cape Horn instead of the Cape of Good Hope? On the return voyage why does she go by the way of Cape Horn instead of sailing back the way she came?

Routes across the Indian Ocean.—Suppose a vessel bound from Portland, Maine, to Calcutta, arrives in the Indian Ocean in December—will she find the Monsoons favorable or unfavorable? If she is to go from Calcutta to Cape Town, in what months will she make the quickest passage?

From the Atlantic Ports to San Francisco.—Through what waters and around what capes would a vessel sail, in going from Philadelphia to San Francisco? Where would she be almost sure to encounter heavy gales?

Send a cargo of woolen and leather goods from Boston to San Francisco *via* the Isthmus of Panama—where would the cargo have to be transferred from one conveyance to another?

From San Francisco to China and Japan.—Send a ship from San Francisco to Canton—what winds favor the passage? The return? In going from Canton to Yokohama the vessel enters what belt of winds?

From England to India there are several routes. Trace the passage *via* the Cape of Good Hope—what winds are experienced? In making a sea-voyage from London to Calcutta *via* the Suez Canal, what waters would you cross?

In taking the *overland* or *mail* route to India you cross France or Germany to the Mediterranean, and thence take a steamer to India—trace this passage from London to Bombay. From Hamburg to Calcutta.

A Voyage Around the World by a San Francisco merchant. He crosses the United States by railroad to New York—what great cities may he pass through? He brings with him some car-loads of California productions—name them. He sells them in New York, and loads a ship for Havre—what might be the cargo? What wind and waters from New York to Havre?

How does he go to Marseilles *via* Paris? In Paris and Lyons he selects an assortment of goods for Calcutta—what would they probably be? Trace his route by steamer to Calcutta.

He sells his cargo in Calcutta, and sails to Canton, touching at Singapore—through what waters and islands would he pass? He loads his ship at Canton with what goods?

Arriving at San Francisco, he has completed the *Voyage around the World.*

Trade of the Principal Cities.—What articles would be exported from St. Petersburg to New York? Why would not grain be among them? From what cities in our Southern States would New York import cotton? Why not from Calcutta and Alexandria (Egypt)?

Why does London import grain? From what port on the Black Sea? Does Liverpool import cotton in a natural or in a manufactured condition? In what condition is it exported? What great city in South America exports coffee? What one in the West Indies? What town in the East Indies? In Arabia?

Would rice be shipped from Calcutta to Canton? How are furs sent from Kyachta to Pekin? What is received in return? From what port in South America are copper and wheat exported? Do you suppose any of this wheat is sent to San Francisco? Why? Does Rio Janeiro export, or import, hardware?

Leading Productions.—Let the scholars name some of the countries where each of the following articles is produced:—

Cotton,	Bananas,
Oats,	Sugar-Cane,
Hemp and Flax,	Beet-root Sugar,
Cochineal,	Tin,
Gum Arabic,	Copper,
Spices,	Coal,
Furs,	Indigo,
Wine,	Logwood,
Hides,	Ivory,
Silk,	Ipecacuanha,
Whiskey,	Opium,
Salt,	Tobacco,
Oranges,	Jewelry,
Rice,	Pine-apples,
Petroleum,	Cocoanuts,
Mahogany,	India-Rubber Gum,
Gold,	Dates,
Silver,	Chestnuts,
Beer,	Almonds,
Coffee,	Wheat,
Lemons,	Maize,
Ostrich Feathers,	Sarsaparilla,
Linen,	Sago,
Ropes and Cordage,	Tapioca,
Wool.	Barley,
Laces,	Olives,
Fancy Goods,	Tea,
Figs,	Cocoa.

State the principal use of each of the above articles: as Food, Clothing, Fuel, Luxury, etc.

State whether they belong to the Animal, Vegetable, or Mineral kingdom; whether they are in a Natural or in a Manufactured state; whether they are found in Hot, Warm, Cool, or Cold countries.

[Note.—*The above exercise on Productions may be altogether omitted if found to be too difficult; or it may be greatly extended so as to include all the leading Minerals and Manufactures of the world.*]

CHART
EXHIBITING
THE OCEAN CURRENTS
THE WIND ZONES
AND
THE PRINCIPAL ROUTES
OF
OCEANIC COMMUNICATION
Reference to the Colors.
Trade Winds.
Belts of Calms
Monsoons.
Variable Winds.
Explanation of Signs.
Cold Currents
Warm Currents
Direction of Ocean Currents
Sailing Routes
Steam Routes
Longitude East from Greenwich
Longitude West from Greenwich
PREVAILING NORTH WINDS
ARCTIC OCEAN
VARIABLE
ARCTIC CIRCLE
ANTARCTIC CIRCLE
TROPIC OF CANCER
EQUATOR
NORTH AMERICA
SOUTH AMERICA
ASIA
EUROPE
AFRICA
AUSTRALIA
GREENLAND
PREVAILING SOUTH-WEST WINDS
TRADE WINDS
CONSTANT NORTH-EAST WINDS
CONSTANT SOUTH-EAST WINDS
ZONE OF CALMS
CALMS
Equatorial Current
Japan Current
INDIAN OCEAN
MONSOONS
SOUTH-WEST WINDS FROM APR. TO OCT. NOR-EAST OCT. TO APR.
SOUTH EAST WINDS FROM APR. TO OCT. NORTH WEST WINDS FROM OCT. TO APR.
VARIABLE WINDS
PREVAILING NORTH-WEST WINDS
From China & Japan to California
From the United States & England to Australia
From the United States & England to China
From Australia to Peru
Counter Current
Cape Current
Connecting Current
Brazil Current
Mexican Current
Arctic Current
Stormy Region of the Cape
C. of Good Hope
Gulf of Guinea
Hudson Bay
Baffin Bay
Behring Strait
Behring Sea
Caravan Route
Mediterranean Sea
Black Sea
Suez Canal
St. Petersburg
Moscow
Odessa
Alexandria
Mocha
Bombay
Madras
Calcutta
Canton
Shanghai
Pekin
Hakodate
Yokohama
Sydney
Melbourne
Cape Town
San Francisco
Sitka
Chicago
St. Louis
Philadelphia
New York
Boston
Portland
Halifax
New Orleans
Havana
Panama
Callao
Valparaiso
Buenos Ayres
Rio Janeiro
Bahia
Para
Liverpool
London
Hamburg
Havre
Paris
Marseilles
Trieste
To India & China
To Australia

Harrod, Howard L.

GENERAL REVIEW.

QUESTIONS ON THE MAPS OF THE GRAND DIVISIONS.

Atlantic Ocean.—*Inlets.*—What Grand Divisions lie upon the eastern shores of the Atlantic? Upon the western? Name in their order, from south to north, the inlets of the Atlantic upon the coast of Africa. Of Europe. Of North America, from north to south. Of South America.

Peninsulas and Capes.—Name the African capes which project into the Atlantic. The peninsulas and capes of Europe which project into the Atlantic. Those of North America. Of South America.

Islands.—Name the Atlantic islands near the coast of Africa, from south to north. What two oceanic islands south and west of Guinea? What oceanic islands west of Spain? Why are they called *oceanic?* (*See page 8, under paragraph 3.*)

Name the Atlantic islands near the coast of Europe. What great oceanic island west of Norway and midway between Europe and America?

Name the Atlantic islands near the coast of North America. What oceanic group south-east of Cape Hatteras? What chain of islands connects North and South America? What oceanic islands east of Patagonia?

Rivers.—Name, from north to south, the African rivers which flow into the Atlantic. The European rivers which flow into the Atlantic. The rivers of Africa and Europe which flow into the Mediterranean and Black Seas.

Name, from north to south, the rivers and lakes of North America which flow into the Atlantic and its inlets. Those of South America.

Pacific Ocean.—*Inlets.*—What Grand Divisions lie upon the eastern shores of the Pacific? Upon its western shores? Name the inlets of the Pacific upon the coast of South America. Of North America. Of Asia, from north to south. Of Australia.

Peninsulas and Capes.—Name the peninsula and capes of South America which project into the Pacific. Of North America. Of Asia. Of Australia.

Islands.—Name the Pacific islands on the coast of South America, from south to north. What oceanic islands west of Chili? Name the Pacific islands near the coast of North America. What chain extends from North America to Asia?

Name the Pacific islands near the coast of Asia. Which of them belong to the Malay Archipelago? Name the Pacific islands which belong to Australasia. Name the principal groups of the Polynesian islands. Are they oceanic or continental?

Rivers.—Name the rivers of North America which flow into the Pacific. Those of Asia. Why are there no long Pacific rivers in South America?

Indian Ocean.—*Inlets.*—What Grand Division and archipelago lie upon the eastern shore of the Indian Ocean? What Grand Division upon the northern shore? Upon the western? What inlets of this ocean upon the coast of Australia? Of Asia? Of Africa?

Peninsulas and Capes.—What Australian capes penetrate into the Indian Ocean? What three Asiatic peninsulas? What Asiatic cape? What African capes?

Islands.—What group of islands between the Pacific and Indian Oceans? Name the largest two of them which border upon the Indian Ocean. Name the Indian islands near the coast of Asia. Of Africa.

Rivers.—Name the rivers of Asia which flow into the Indian Ocean. Those of Africa.

Arctic Ocean.—*Inlets.*—What three Grand Divisions form nearly a circle around the Arctic Ocean? Name, from east to west, the Arctic inlets on the coast of Asia. Of Europe. Of North America. What passage connects the Arctic with the Pacific?

Peninsulas and Capes.—What cape projects from Asia into the Arctic? From Europe? What American peninsulas and cape?

Islands.—What Arctic islands near the coast of Asia and Europe? Of North America?

Rivers.—What rivers of Asia flow into the Arctic? Of Europe? Of America?

Surface of the Continents.—*Western Continent.*—A great mountain system follows the Pacific coast of America—in what direction does it extend? What is the name of this system in S. America? What are the two principal ranges in N. America? Where is this system the highest—in N. America, or in S. America? Where is it the widest—in N. or in S. America?

What lower range of mountains follows the Atlantic coast of North America? What ranges lie near the Atlantic coast of South America?

What great plain in North America lies between the Rocky and the Alleghany Mountains, extending from the Arctic Ocean to the Gulf of Mexico? In what direction does its greatest length extend? A great plain in South America lies between the Andes on the west and the mountains of Guiana and Brazil on the east—in what direction does its greatest length extend? This great central plain of the Western Continent extends, therefore, from the Arctic Ocean to the Strait of Magellan, interrupted only by the Gulf of Mexico and Caribbean Sea—in what direction? What mountains form its western border?

Eastern Continent.—A great mountain-system extends from Behring Strait in Asia to the Atlantic Ocean in Europe—name its parts, from north-east to south-west. North of this system a great plain stretches to the Arctic and Atlantic Oceans—in what direction does its greatest length extend? A fringe of mountainous peninsulas extends from the southern part of Asia and Europe—name them, from east to west.

The coast of Africa is skirted by ranges of mountains—name the ranges which follow the Mediterranean coast. The Atlantic coast. The Indian Ocean coast. What is the surface of the land enclosed by these ranges?

The coast of Australia is skirted by mountain-chains—what is the character of the surface which they enclose? What is the surface of the Polynesian Islands?

QUESTIONS ON THE MAPS AND TEXT.

Climate.—What Grand Division lies wholly in the North Temperate Zone? What two principally in that zone? What two chiefly in the Torrid? What one is almost equally divided between the Torrid and South Temperate Zones? Which are the warmest—the three northern or the three southern?

Vegetation.—Are the trees of tropical countries mostly evergreen or deciduous? Those of temperate climates? What evergreen trees grow in very cold countries? Name some of the principal plants that grow in tropical countries. In sub-tropical (or warm-temperate) countries. In cool-temperate.

Animals.—Where is the Elephant found? The Tiger? Lion? Giraffe? Camel? Leopard? Puma? Jaguar? Rhinoceros? Hippopotamus? Grizzly Bear? In which continent are the largest and fiercest animals—the Eastern or Western? Where are the fur-bearing animals found? Name some of them.

In what countries are the most dangerous and troublesome reptiles and insects? Many of the most useful domestic animals are found in nearly all parts of the world—name some of these animals.

Man.—What races occupy America? Asia? Africa? Australia? Europe? Which Grand Divisions are the most thickly settled, and the most highly civilized—the three northern or the three southern? Which three, therefore, contain the greatest number of large cities?

Towns.—[*See Map of United States, page 23, and Maps of the Grand Divisions.*]

Name the cities of North America, from west to east, which are near parallels thirty-eight and forty. Those of Europe. Of Asia. Name the cities of North America, from west to east, which are near latitude 42°. Those of Europe. Of Asia. What cities therefore are nearly parallel with Boston and Chicago?

What cities of North America near 45°? Of Europe? In Europe near latitude 50°? In Asia? Near latitude 55° in Europe? Near latitude 60° in Europe?

What is the latitude of San Francisco? Of Quebec? You will thus see that there are very few cities in Europe which are farther south than San Francisco, and that most of the great European cities are much farther north than Quebec.

[*For the following questions, see Statistical Tables, page 92.*] Name twelve of the largest cities of the United States. The largest two in British America. The largest one in Mexico. In the West Indies. The largest four in South America. The largest ten of Europe. The largest four of Africa. The largest five of Asia. The largest two of Australia.

[Note.—*The teacher who wishes to review the towns still further may use the Tables for this purpose.*]

A SYSTEM OF MAP-DRAWING.

BY E. A. AND A. C. APGAR.

This system of Map-Drawing is substantially the same as that originally prepared by the authors and published in 1865. Such improvements have been introduced, however, as the practical workings of the system have shown to be important.

SUGGESTIONS TO TEACHERS.

THE study of geography consists largely in a study of the form and locality of the features of the earth's surface. Maps give a much better idea of the form and locality of geographical features than can be obtained from descriptions only; hence, maps should be among the principal objects of study in geography.

The pupil commits his lesson in text to memory, and for a recitation, he repeats it to the teacher as given by the author. In studying maps the same rule should be observed; that is, the maps should be committed to memory, and for a recitation they should be reproduced as given in the book.

That form is easiest remembered which the hand is taught to trace. The exercise of the mind, needed to teach the hand to trace a form, impresses that form upon the mind. As the study of maps is a study of form, the manner of studying them should be by map-drawing.

In learning to draw maps, the pupil needs some rule or guide to assist him in drawing them correctly, and also to enable him to judge of their accuracy when drawn. This assistance is best afforded by the use of geometrical figures or diagrams. The diagram used in each case, in order to answer the purpose intended, should be so constructed as to coincide as nearly as possible in its outline with the boundaries of the map to be drawn. By the relative lengths of the lines of which it is composed, it should express the general laws of form of the map it is intended to accompany, and, by its angles and division marks, the position of prominent features should be determined. However complex and irregular the map may be, the diagram should be so simple that it can be readily constructed and easily remembered by the pupils.

In the construction of the diagrams used for drawing the Continents, the first line in each case serves as a measure for determining the lengths of the other lines. For the States *no additional diagram is used*, because the bounding lines are generally straight, and they themselves when taken together form a geometrical figure. In drawing the States, therefore, it is only necessary to select one of the straight lines forming the boundary for a measuring unit. The line selected should be a convenient measure or multiple of the other lines.

In conducting exercises in map-drawing, the class should be practiced,—*first* in drawing upon the blackboard, under the immediate direction of the teacher; *second*, in drawing upon slates, their work to be submitted to the teacher; and *third*, in executing maps upon paper, to be presented for the criticism of both the teacher and the class.

Either the teacher or one of the more skillful pupils should execute a well-finished and accurate map upon the blackboard. From this drawing—which is much to be preferred to any printed outline map—the class may recite their lesson, and upon it each of the new features, as they are learned from day to day, may be represented.

It is well to accompany every lesson in map-drawing with more or less practice in rapid sketching. In order to excite emulation for quick work, the lesson may be drawn on the board, and the exercise timed by the teacher. Pupils, by practice, will soon be able to draw a diagram in half a minute, a State in from half a minute to two minutes, and a Continent in from three to five minutes. Concert recitation should frequently accompany rapid sketching.

An exercise called *talking and chalking* will be found both interesting and valuable. The pupil, while he is drawing a map, briefly and in a lively manner, describes the features as he represents them; his verbal explanations all the while keeping pace with his illustrations made with the chalk.

All directions and exercises in map-drawing should be such as to prepare the pupil to draw rapidly, accurately, and *without the copy.*

After the pupils have learned to draw a map with sufficient accuracy, and are able to describe satisfactorily the features it contains, they may, with the use of colors and India ink, be taught to draw and embellish one for preservation. *Not much time, however, should be spent in producing highly ornamented maps.* A slate-pencil and slate, lead-pencil and paper, white crayon and blackboard, are all the materials usually needed in map-drawing exercises. Rapid work and much of it should be the motto.

Special attention should be directed to the method employed for representing the population of cities and the heights of elevations. The symbols used will greatly assist the memory in retaining these facts. Special lessons may be given to teach their meaning. Their use should be required in all map-drawing exercises.

In drawing a Continent, the pupils should be taught,—*first*, to construct the diagram accurately; *second*, to draw the coast line, and to describe all the features formed by it, such as peninsulas, capes, bays, gulfs, &c.; and *third*, to draw and describe the internal features, such as mountains, lakes, rivers and cities. It is all important that the pupils should be able to draw the outline of a Continent readily and accurately, before they attempt to represent the internal features; for upon an imperfect drawing of the outline, the details must necessarily be imperfect.

In describing the features of a map, observe the following order and directions :—

Diagram.—Explain in full the manner of its construction.

Points of Coincidence.—Name in order the angles and division marks upon the diagram, and the features upon the map, the location of which they determine.

Peninsulas.—State from what portion of the Continent they project, and by what waters they are embraced.

Capes.—State from what portion of the Continent they project, and into what waters.

Bays.—Give their location, and the names of the bodies of water to which they are tributary.

Islands.—State where situated, and name the waters by which they are surrounded.

Mountains.—Give their height, the general direction in which they extend, and the part of the Continent where they are located.

Lakes.—State where located, and name the river which forms the outlet.

Rivers.—State where they rise, in what direction they flow, and into what waters.

Political Divisions.—Bound the country and name, bound, and give the capital and largest city of each of the divisions.

Cities.—Give location and population.

EXPLANATION OF THE SIGNS USED TO REPRESENT THE POPULATION OF THE CITIES AND TOWNS.

FIRST CLASS.

In the First Class only one Sign is nsed viz. a ronnd dot.
● represents under 10.000 Inhabitants.

SECOND CLASS.

Each Line of the Second Class represents a population of 10.000.

- 10,000
- 20,000
- 30,000
- 40,000
- 50,000
- 60,000
- 70,000
- 80,000
- 90,000

THIRD CLASS.

The markings of the Third Class have a Dot in the centre. Each Line upon this Dot represents 100.000 population.

- 100,000
- 200,000
- 300,000
- 400,000
- 500,000
- 600,000
- 700,000
- 800,000
- 900,000

FOURTH CLASS.

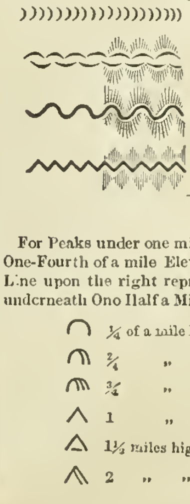
The markings of the Fourth Class have a Dot and Circle (◉) in the centre. Each Line upon this Dot and Circle represents 1,000,000 inhabitants.

- 1,000,000
- 2,000,000
- 3,000,000
- 4,000,000

EXPLANATION OF THE SIGNS USED TO REPRESENT THE ELEVATION OF THE MOUNTAINS.

RANGES.

Hill and Mountain Ranges, Like the Cities, are divided into Four classes. The First is represented by a series of Parallel Curves; the Second by a series of Interlocking Curves; the Third by a Waved Line; and the Fourth by a Zigzag Line; as follows:



First Class or Hills,—Under 2000 ft. high.

Second Class,—Between 2000 & 8000 ft. high, or Between ½ and 1½ miles high.

Third Class,—Between 8000 & 16,000 ft. high, or Between 1½ and 3 miles high.

Fourth Class,—Over 16,000 feet high, or over 3 miles high.

PEAKS.

For Peaks under one mile high each Curve upon the right represents One-Fourth of a mile Elevation; for those one mile high or more, each Line upon the right represents One Mile in Elevation and the Dash underneath One Half a Mile.

¼ of a mile high	2½ miles high.
2/4 " "	3 " "
¾ " "	3½ " "
1 " "	4 " "
1½ miles high.	4½ " "
2 " "	5 " "

System Patented October 16th., 1866.

Entered, according to Act of Congress, in the year 1873, by E. A. & A. C. APGAR, in the Office of the Librarian of Congress, at Washington.

DIRECTIONS FOR DRAWING NORTH AMERICA.

Diagram.—1. Draw a quadrant, and divide it into four equal parts, as represented in the figure. Through the first division at 1, and the right angle, draw the first line of the diagram the length desired for the map.

2. From the centre of this line, draw the line **C D** at right angles with it, and one-half its length. Connect **A D** and **B D**.

3. Extend the line **C D** toward **E**, making the whole length **D E**, equal to **A D** or **B D**, and draw the lines **A E** and **E B**.

4. Divide the line **A E** into four equal parts, and from the upper division-point at **G**, draw the line **G H** at right angles to **A E**, and equal to **E C** in length. Connect **A** and **H**.

5. Divide the line **E B** into two equal parts, and from its centre, and at right angles with it, draw the line **I J** one-half the length of **E C**, and connect **E** and **J**, and **J** and **B**.

6. Divide the lines **C D** and **C B** each into two equal parts, and the lines **A D** and **D B** each into six equal parts.

7. Sub-divide the lower division of the line **D B** into three equal parts, and from the division-point at **L** draw **L M**, and from **M** draw **M N**, and from **N** draw **N O**,—making the length of each line equal to two thirds of the distance from **B** to **K**, or equal to the distance from **L** to **K**.

It will be observed that if the diagram is correctly drawn, the lines **D A**, **D E** and **D B** are equal in length, and the line **A E** is vertical.

Position.—North America is situated North of the Equator, and is joined to South America by the Isthmus of Panama.

Extent.—The length of the Continent, extending from Point Barrow, on the North, to the Port of Guatemala on the South, is 4,800 miles.

General Form.—The general form of North America is triangular. It is wide toward the North, and narrow toward the South. The Arctic and Atlantic coast-lines are nearly straight in their general direction, while the Pacific coast-line is curved.

Points of Coincidence.—The position of Point Barrow is determined by the northern angle of the diagram; Cape Charles by the eastern angle; Port of Guatemala by the southern angle; Bay of San Francisco by the western angle; and the western extremity of Alaska Peninsula by the north-western angle.

* **Drawing the Map.**—*Arctic Coast.*—Commence at Point Barrow. Make the mouth of the Mackenzie River opposite the first division; Victoria Land on the second; the mouth of Hudson Bay between the third and fourth, and Ungava Bay and Cape Chidley near the fifth division. The southern extremity of Hudson Bay touches the line **C D** near its centre.

Atlantic Coast.—Make the Pena. of Nova Scotia opposite the first division; Cape Cod north of the second, and Cape Fear at the third. The western shore of Florida crosses at the fourth division; the mouth of the Gulf of Mexico is between the fourth and fifth, and Yucatan Pena. extends as far north as the fifth. The shore of the Gulf of Mexico crosses the line **C B** near its centre, and touches the line **E B**. The shore of Central America, and the Isthmus of Panama follows closely the zigzag line from **K** to **O**.

Pacific Coast.—California Peninsula extends nearly as far south as the angle at **J**, and the eastern shore of the Gulf of California crosses the line **I J** near its centre.

Note.—It will be observed that the Lake of the Woods is on the line **C D**, midway between its centre and **C**; also, that Lake Erie is midway between the centres of the lines **C D** and **B D**.

* In these directions for drawing, some features are referred to which are not found upon the accompanying maps. In such cases it is expected that the pupil will refer to the other maps in the book.

DIRECTIONS FOR DRAWING SOUTH AMERICA.

Diagram.—1. Draw the vertical line **A B** the length desired for the map, and divide it into four equal parts. From the upper division-point, draw a horizontal line to the right, one-half the length of the first line, and divide it into three equal parts. Extend this horizontal line one-third of its length to the left.

2. Draw straight lines from **C** to **F**, from **F** to **A**, from **A** to **E**, and from **E** to **B**, and divide the lines **F A**, **A E**, and **E B**, each into three equal parts.

General Form.—South America in its general form is wedge-shaped—being wide toward the north and narrow toward the south. Its coast-line is simple, and deviates but little from the lines of the diagram. The length of the Continent from north to south is 4,500 miles.

Points of Coincidence.—The position of the Peninsula of Paraguana is determined by the northern angle of the figure; Cape St. Roque by the eastern angle; Cape Pillar by the southern, and Cape Parina by the western. Opposite the second division-point, on the line **F A**, is the Isthmus of Panama; and opposite the second, on the line **A E**, is the mouth of the Amazon. Opposite the first division on the line **E B** is Cape Frio, and opposite the second is the mouth of the Rio de la Plata.

DIRECTIONS FOR DRAWING AFRICA.

Diagram.—1. By means of a quadrant divided into six equal parts, as represented in the figure, draw the first line of the diagram the length desired for the map.

2. Divide this line into two equal parts at **C**, and the upper half in four equal parts.

3. With the points **A** and **B** as centres, and with a radius equal to three-fourths of the first line, draw two arcs to intersect **D**, and draw the lines **A D** and **B D**. In the same manner with the points **A** and **C** as centres, and with a radius equal to three-fourths of the line **A C**, determine the point **E**, and draw **A E** and **C E**.

4. Divide the line **A D** into two equal parts, and draw the perpendicular **F H** equal to one-eighth of the first line. Divide the part **F D** into two equal parts, and draw the lines **A H** and **H G**. Trisect each of the lines **A H**, **D B**, **B C** and **C E**.

General Form.—Africa resembles both North America and South America in its general form, being wide at the north and narrow toward the south. Its coast is very regular, like that of South America. Its length, from Cape Spartel to Cape Agulhas, is 5,000 miles. Like South America, it is situated on both sides of the Equator.

Points of Coincidence.—The position of Cape Spartel is determined by the northern angle of the diagram; the Isthmus of Suez by the north-eastern angle; Cape Guardafui by the eastern angle; Cape Agulhas by the southern, and Cape Roxo by the western.

Outline.—Commence at Cape Spartel, and draw the northern and eastern coasts; then, from the same point, draw the western coast. The coast from Cape Spartel to Cape Bon is without the line of the diagram; then it crosses the line, and forms the Gulf of Sidra, opposite the second division-point. The western shore of the Red Sea follows the line **H G**, and makes an inward curve between **G** and **D**. The eastern shore first makes a small outward curve; touches the line at the first division-point, and then makes a much larger bend without the line, touching again at Cape Agulhas. From this point it deviates but little from the diagram till it reaches Cape Lopez. Between this point and the first division on the line **C E**, there is a large inward bend forming the Gulf of Guinea. It then bends without the line till we reach Cape Roxo. From Cape Roxo to Cape Spartel the coast is wholly without the line.

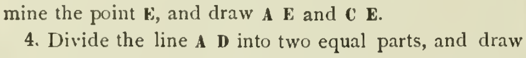


Fig. 1.

Figure 1 represents a convenient Ruler for pupils to use in drawing maps upon the blackboard. It is twenty inches long, and divided into halves, thirds, fourths and sixths. A similar one, six inches long, may be used for drawing on slate or paper.

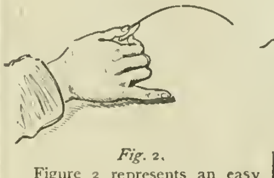


Fig. 2.

Figure 2 represents an easy method for drawing a quadrant.

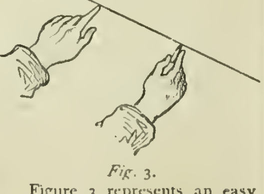


Fig. 3.

Figure 3 represents an easy method for trisecting a line.

Note.—In the construction of diagrams, and in the division of lines, the pupils should at first be allowed to use a ruler, such as the one represented in figure 1. After some practice, however, the ruler should be dispensed with, and the figures should be drawn by hand, guided only by the eye.

In drawing a quadrant, a piece of crayon held between the thumb and first finger may be made to describe the arc around the end of the fourth finger, as represented in figure 2. A vertical and a horizontal line drawn from the centre to the arc will complete the quadrant. Instead of the hand, a short string with a piece of crayon tied to the end of it may be used; or, each pupil may be furnished with a quarter of a circle, cut out of a piece of writing paper, having the divisions of quarters and sixths marked upon it.

In dividing a line into three equal parts, use the finger of one hand and a crayon in the other, and place them so that the three parts appear equal, as represented in figure 3.

In dividing a line into four or six parts, first bisect it, and then bisect or trisect each half.

It will be observed that the different lines of the diagrams are drawn in the order they are lettered, and that the divisions are made in the order they are numbered.

In drawing upon paper or slate, the diagram should be in very light lines. For blackboard work, the figure should be drawn with a slate-pencil.

MODEL LESSON IN MAP-DRAWING.

In Map-drawing Exercises, the pupils may either be required to describe their work in full, without the assistance of questions; or, the lessons may consist of a series of questions and answers similar to the following model:—

North America.—After the diagram is made, the class is prepared to draw the map,—first, with the atlas in hand, and afterwards from memory. Every order given by the teacher should be executed by the class simultaneously, and with military promptness and precision. The execution should commence immediately after the last word of the order is given. Each pupil is supposed to have his own diagram on the board upon which he draws his map.

Outline: *Teacher.*—What is the most northern point of North America?

Scholars.—Point Barrow.

T.—Show where Point Barrow is located. In what direction from it is Cape Charles?

S.—South-east.

T.—Point where Cape Charles is located. (Scholars point.) Now make a dot showing the location of each of the following places between these two Capes:—1st. For Cape Bathurst. (Scholars made the dot with the crayon.) 2d. For Victoria Land. 3d. For the northern extremity of Melville Pena. 4th. For Hudson Strait. What large bay between Melville Peninsula and Hudson Strait?

S.—Hudson Bay.

T.—5th. For the southern extremity of Hudson Bay. (Dot.) 6th. For Cape Chidley. What bay south-west from Cape Chidley?

S.—Ungava Bay.

T.—Draw the coast-line from Point Barrow to Cape Bathurst. (Scholars draw.) From Cape Bathurst to Victoria Land. From Victoria Land to Melville Peninsula. Draw Hudson Bay and James Bay. Draw the line from Hudson Strait to Cape Charles.

The teacher should now make a brief inspection of the work done, and point out and correct all the faults made.

In this manner the outline of North America should be completed.

Mountains: *T.*—How far do the Rocky Mountains extend?

S.—Through the entire length of North America.

T.—What is their elevation?

S.—Between 8,000 and 16,000 feet, except the northern portion, which is only between 2,000 and 8,000 feet.

T.—Draw the Rocky Mountains nearly parallel with, and at a proper distance from the Pacific Coast. What range in the eastern part of the Continent?

S.—The Appalachian Mountains.

T.—What is the elevation of this range?

S.—About 2,000 feet.

T.—Draw it. The teacher should now inspect the drawing of the mountains and correct mistakes.

Lakes: *T.*—What three lakes have their outlet through the Mackenzie River?

S.—Great Bear Lake, Great Slave Lake, and Athabasca Lake.

T.—Point where the first is located; the second; the third. Draw the first; the second; the third.

In this manner complete the drawing of the lakes.

Rivers: *T.*—Describe the Yukon River.

S.—It rises near the Pacific Coast and west of the Great Slave Lake; flows, first, in a north-westerly direction, then westerly through the country of Alaska, and empties into Behring Sea.

T.—Draw it. Follow in the same manner with the Mackenzie; Nelson; Albany; St. Lawrence; Ottawa; Savannah, and Alabama.

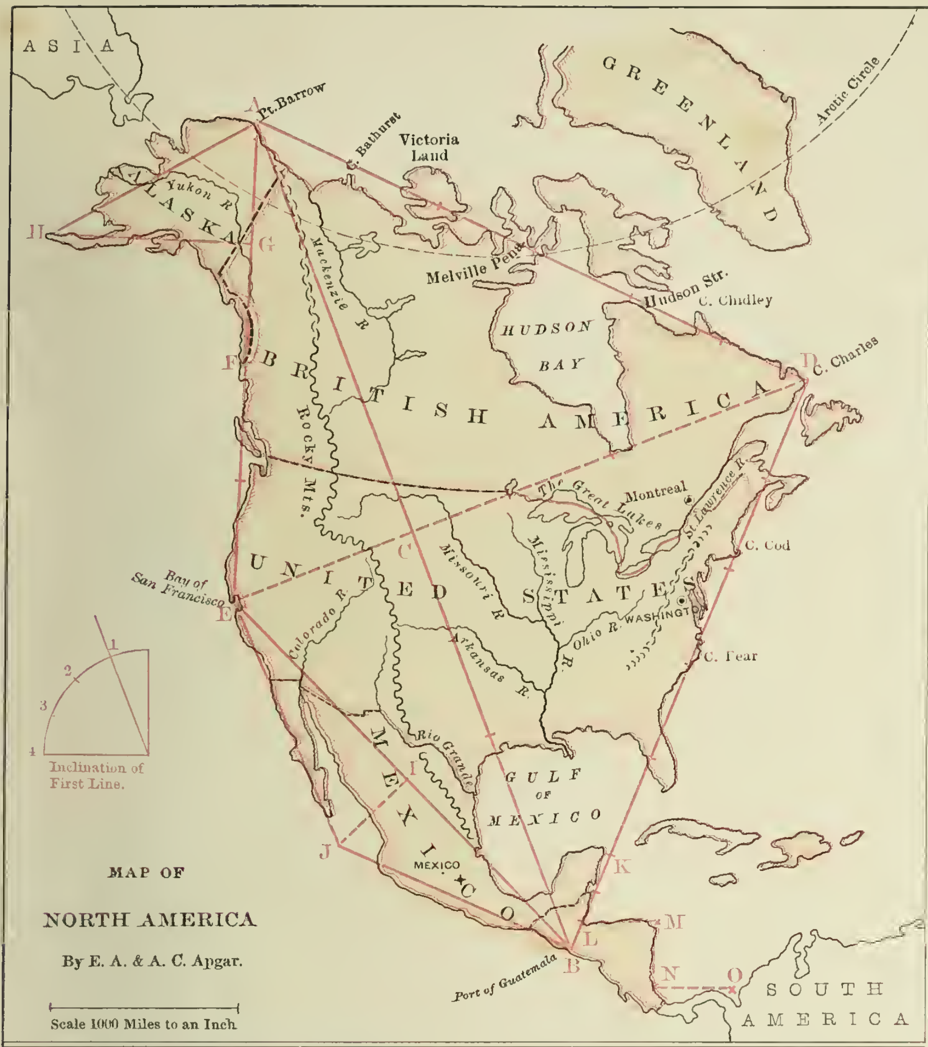
T.—Describe the Mississippi River.

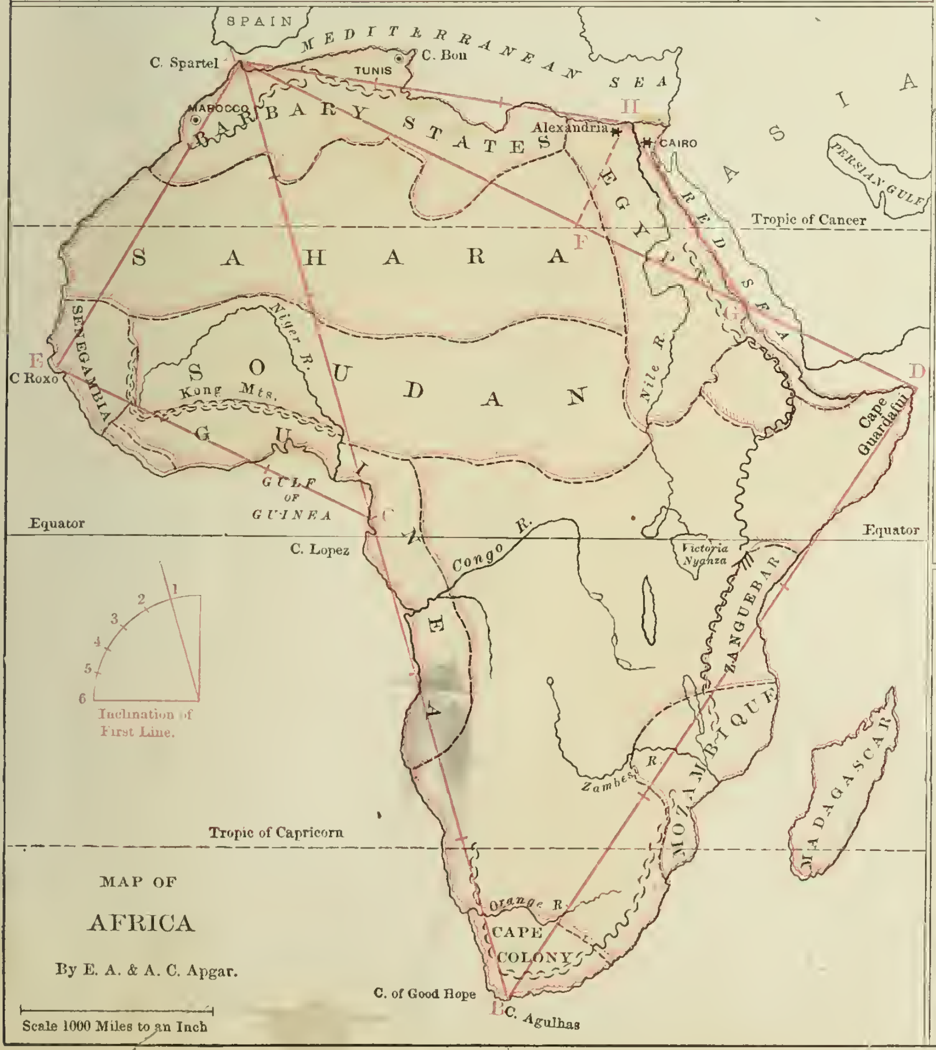
S.—It rises in a small lake west of Lake Superior, and south of the Lake of the Woods; flows a southerly course through the United States, and empties into the Gulf of Mexico.

T.—Draw it. Draw the tributaries, and describe them.

Complete the rivers in this way, and inspect the work.

Cities: *T.*—Locate the cities as I name them, taking pains to show the population of each as it is done in the book.





DIRECTIONS FOR DRAWING AUSTRALIA.

Diagram.—1. Draw the horizontal line A B the length desired for the map, and bisect it at C.

2. Through the centre C draw the line D E at right angles to A B, making C D and C E each one-third the length of A B.

3. Draw D F at right angles to D E, and one-fourth the length of A B, and connect F and B.

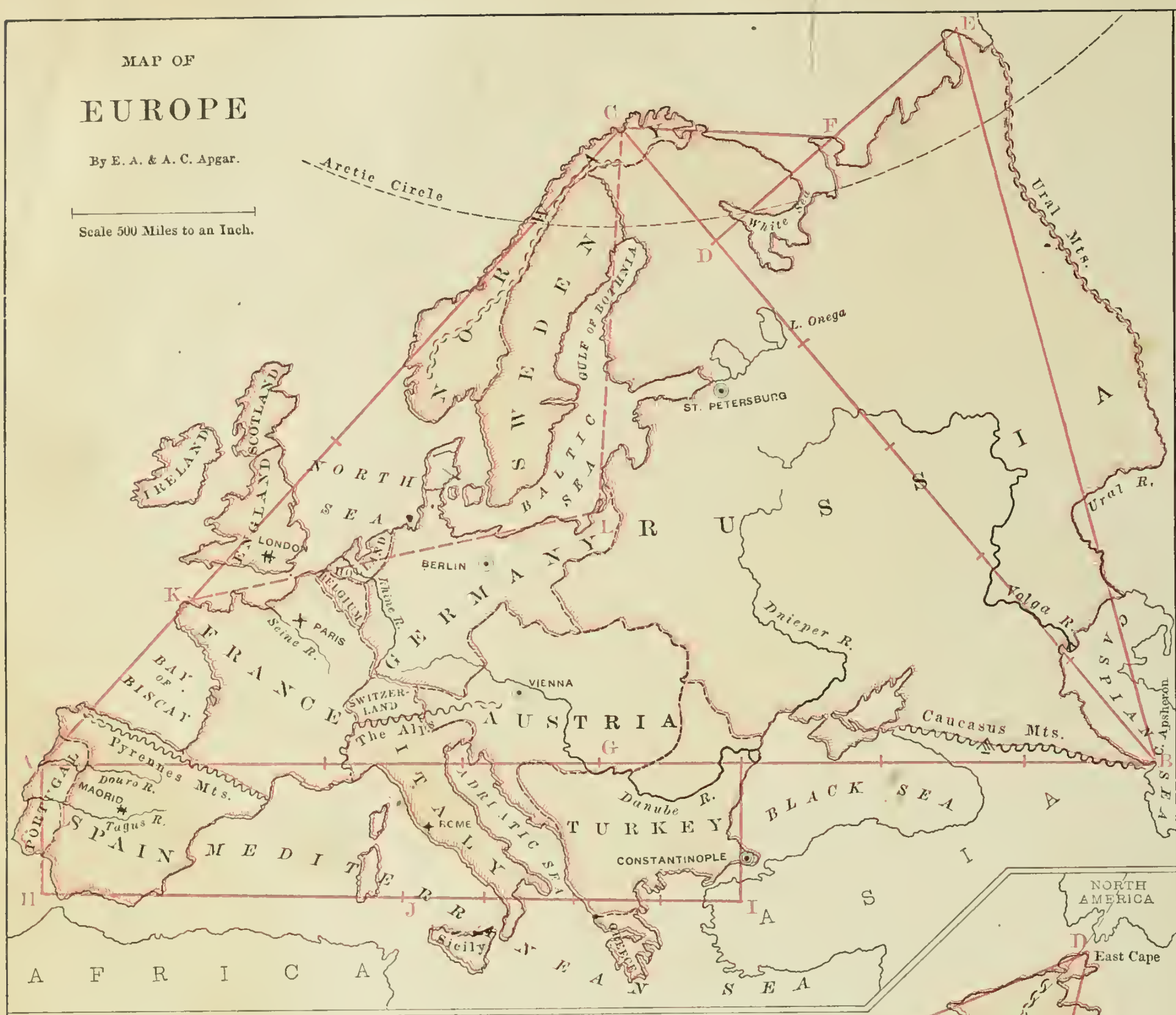
4. Draw G H at right angles to D E, making G E and E H, each equal to F B in length, and bisect the lines C E and E H.

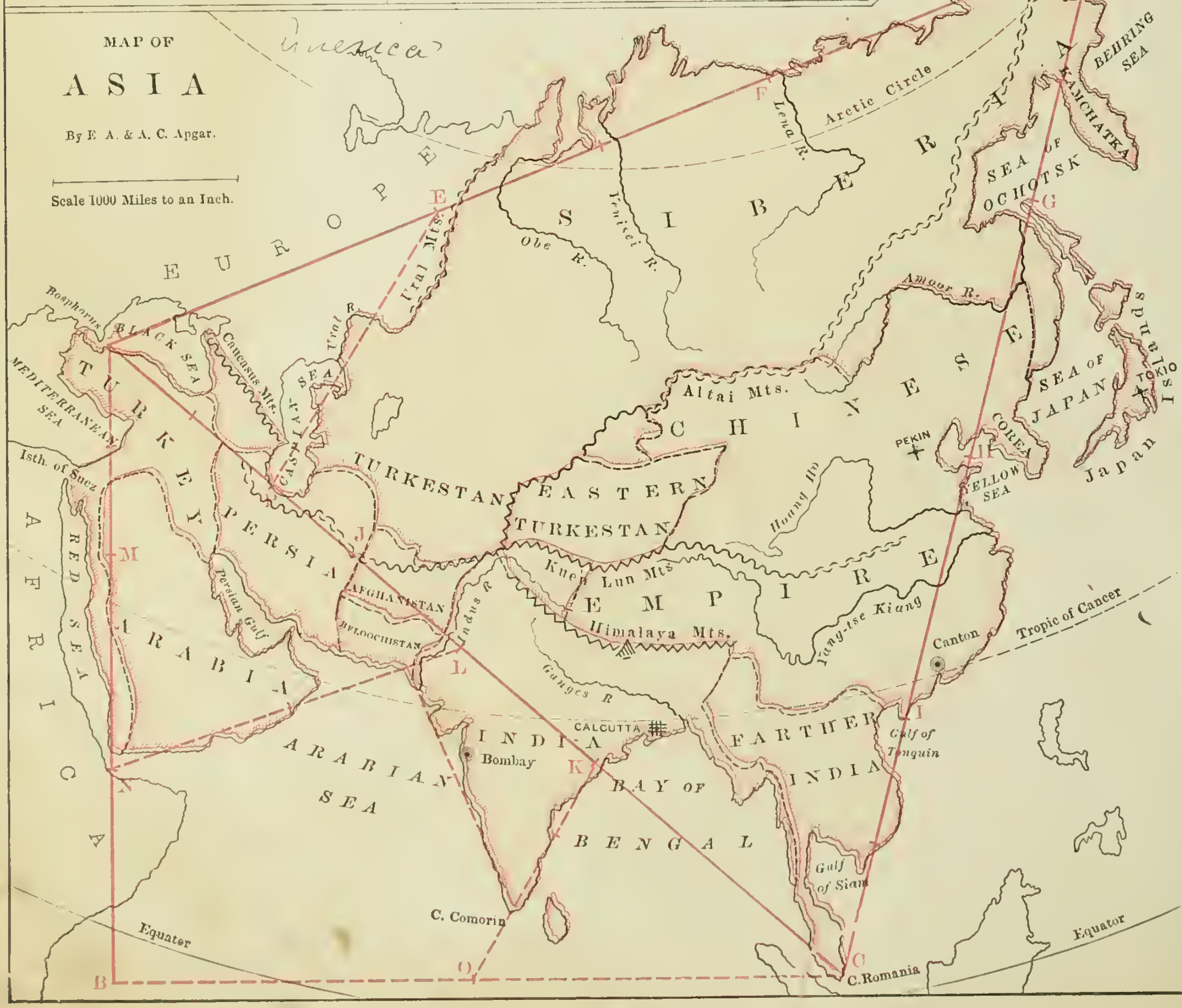
Points of Coincidence.—North-west Cape coincides with the angle at A; Sandy Cape, with the angle at B; Cape Howe, with the angle at H; and Cape Leeuwin, with the angle at G. Cape York is a little north of the angle at F.

Map.—From G the coast extends toward the centre of the line C E, and from this point it extends toward and crosses near the bisecting point of the line E H.

The Gulf of Carpentaria is situated between D and F, and extends toward the south nearly half way to the line A B.

Note.—If Australia is drawn without New Zealand, the first line A B should be inclined about five degrees from the horizontal, the extremity A being farther north than the extremity B.





DIRECTIONS FOR DRAWING EUROPE.

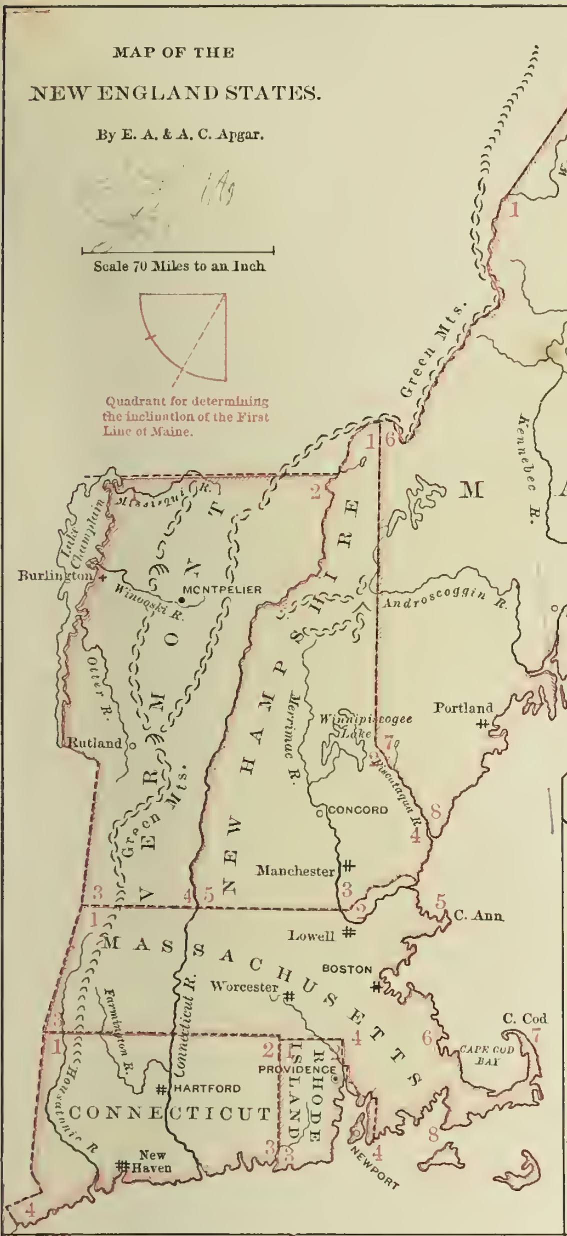
Diagram.—Draw the horizontal line **A B** the length desired for the map. This line connects the mouth of the Douro River with Cape Apsheron. Its length is 3,000 miles. With **A** and **B** as centres, and with a radius equal to three-fourths of **A B**, draws arcs to intersect at **C**, and connect **A** and **C**, and **B** and **C**. Divide **A C** into four, **C B** into six, and **A B** into eight equal parts. From the first division to the right of **G**, and from the angle **A** draw vertical lines, as shown in the figure, each one-eighth the length of **A B**. Connect **H** and **I**, and divide the right-hand half of this line into four equal parts. From **D** draw a perpendicular line equal to two and one-half divisions on the line **A B**, and bisect it. Connect **C** and **F**, and **E** and **B**. From **K** draw a line in the direction of the centre of **C B** until it meets a vertical line drawn from the angle **C**.

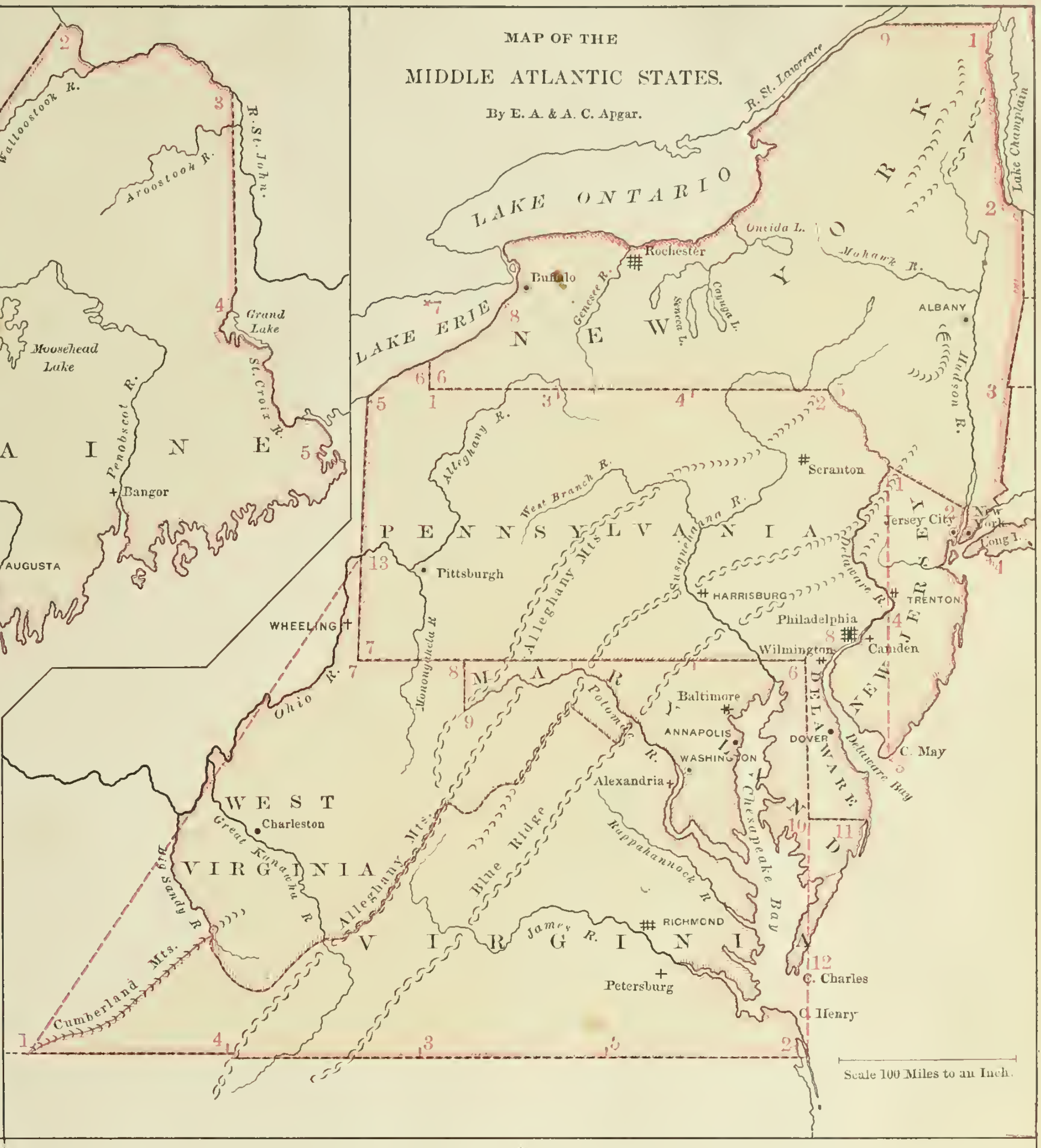
Map.—In drawing the map commence at **C**, on the coast of Norway, and draw, in order, the northern and eastern boundaries; then commence again at **C** and draw the western and southern boundaries. The coast of Norway follows the line **C A**, and extends south to a point about midway between **C** and **K**. The lines **C L** and **L K** will assist in drawing the Gulf of Bothnia, the Baltic Sea, and the north-western shores of Germany and France. The head of the Bay of Biscay is near the first division to the right of **A**, on the line **A B**. The Gulfs of Lions and Genoa are on opposite sides of the second division, and the head of the Adriatic Sea embraces the third division. The fifth division marks the western extremity of the Black Sea; the Sea of Azov is north of the sixth division, and the eastern extremity of the Black Sea is near the seventh. Italy resembles in outline the shape of a boot. The southern extremity is between the first and second divisions to the right of **J** on the line **H I**. The Peninsula of Greece is situated between the second and third divisions, and extends south of this line equal to one division. The Sea of Marmora is a little north of **I**.

DIRECTIONS FOR DRAWING ASIA.

Diagram.—Draw the vertical line **A B** a little more than one-half the length desired for the map, north and south. Divide it into three equal parts, and the upper third into two parts. From the point **B** draw the horizontal line **B C** one and one-sixth times the length of **A B**. Bisect it, and connect **A** and **C**. Trisect **A C**, then bisect the middle division and trisect the upper. With the points **A** and **C** as centres, and with a radius equal to one and two-thirds times the first line, draw arcs to intersect at **D**, and connect **A** and **D**, and **C** and **D**. Trisect **A D** and bisect the middle division. Divide the line **C D** into four equal parts, and bisect both of the extreme divisions. Draw the lines **E P** and **N L** and bisect them; also one from **O** to **K** and trisect it. From the lower trisecting point on the line **O K** draw a line toward **J** till it meets the line **N L**. The distance measured by the line **A C** is 5,300 miles.

Map.—In drawing the map commence at East Cape and draw in order the eastern, southern, and western boundaries, including the Black Sea; then commence again at East Cape and finish the outline. The shore of Kamchatka crosses at the first division on the line **D C**; the southern shore of the Sea of Ochotsk is at **G**; the Yellow Sea is near the centre of the line at **H**; the Gulf of Tonquin is at **I**; and the Gulf of Siam is near the last division. If we suppose a line drawn from this division-point parallel with the line **A C**, it will assist in determining the position of the Gulf of Siam and the Bay of Bengal. Cape Romania coincides with the angle at **C**, and Cape Comorin with the lower division on the line **O K**. The head of the triangle **A N L**. The Strait of Bab-el-Mandeb is at **N**; the Isthmus of Suez between **A** and **M**; and the Strait of Bosphorus, at **A**. The Black Sea extends as far east as the first division on the line **A C**, and the Caspian Sea touches this line at the second division. The position of the Caspian Sea, the Ural River, and Ural Mountains is determined by the line **E C**.





DIRECTIONS FOR DRAWING.

Maine.—The first line from 1 to 2 is 75 miles long. Its inclination is found by trisecting a quadrant, as shown in the figure. The boundary from 2 to 3 is equal to the first line, and the point 3 is opposite the upper trisecting point of the first line. The distances from 3 to 4 and from 4 to 5 are each equal to the first line. The direction of the St. Croix River coincides closely with a line drawn from 2 through 4. The boundary from 1 to 6 is one and one-fourth times the first line and extends in nearly the same direction. From 6 to 7 is one and one-half times the first line. The boundary formed by the Piscataqua River is one-half the first line. Thus the whole distance from 6 to 8 is two times the first line. Points 5 and 8 are joined by the irregular Atlantic coast-line, slightly curved inward.

New Hampshire.—The first line from 1 to 2 is 112 miles long, or one and one-half times the first line of Maine. From 2 to 3 is one-half the first line, and the point 3 is a little west of the first line extended. The boundary from 2 to 3 is formed by the Piscataqua River, the Atlantic coast-line and the irregular boundary extending parallel with the Merrimac River. Point 4 is east of the first line extended and about equally distant from 2 and 3. From 3 to 5 is one-half of the first line. Points 1 and 5 are connected by the Connecticut River.

Vermont.—The first line from 1 to 2 is 75 miles long. From 1 to 3 is two times the first line. Two-thirds of this boundary is formed by Lake Champlain. From 3 to 4 is one-half the first line. Points 2 and 4 are joined by the Connecticut River. Point 3 is a little west of point 1.

Massachusetts.—The first line from 1 to 2 is 100 miles long. From 1 to 3 is one-half of the first line. The eastern extremity of the southern boundary at 4 is directly south of 2. The distances from 2 to 5, from 4 to 6, from 6 to 7, and from 6 to 8, are each one-third of the first line. The bay on which Boston is situated, is midway between points 4 and 5.

Rhode Island.—The first line from 1 to 2 is 22 miles long. From 1 to 3 is two times the first line, and from 3 to 4 is one and one-half times the first line.

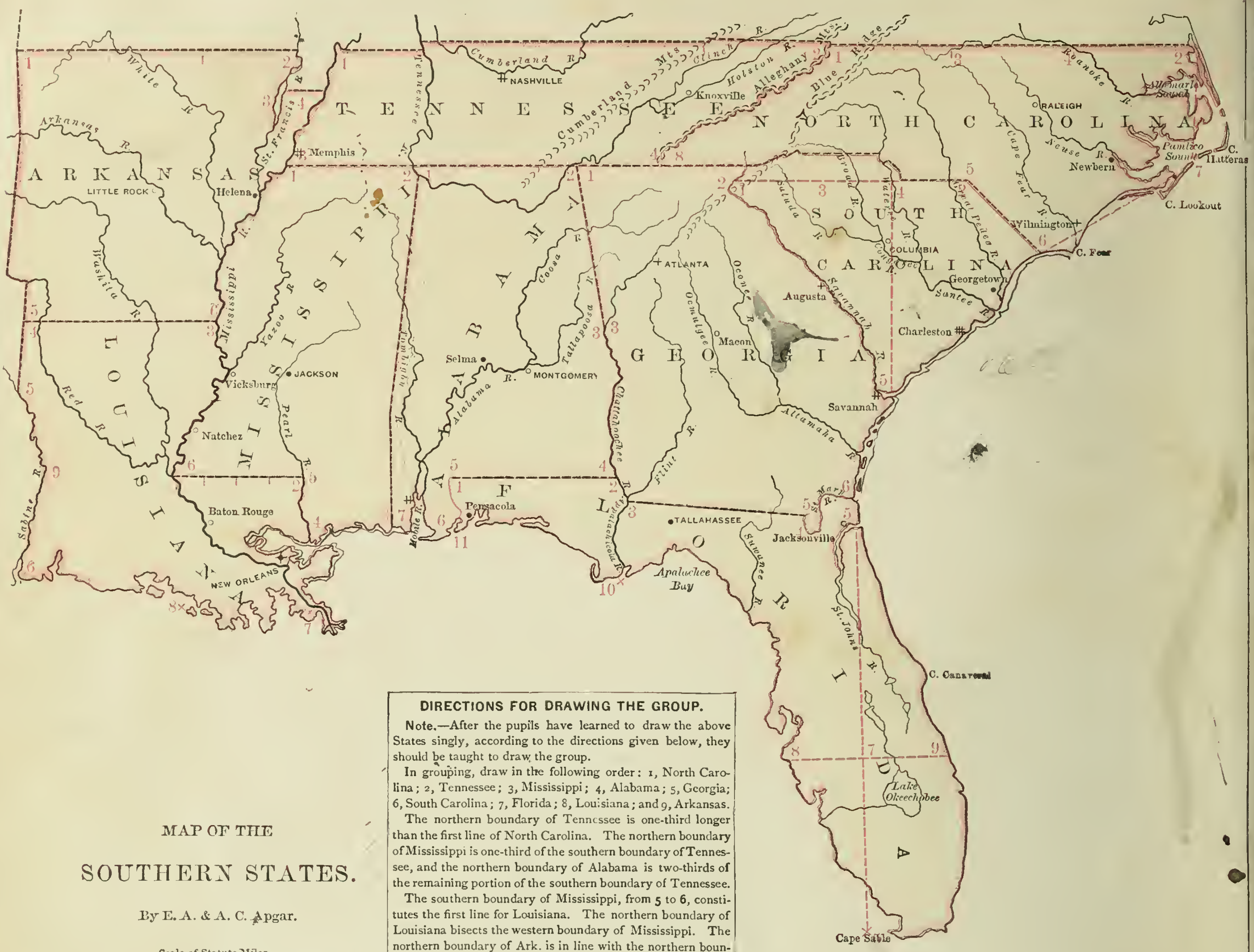
Connecticut.—The first line from 1 to 2 is 88 miles long, or four-fifths the length of the southern straight boundary of Massachusetts. From 2 to 3 is one-half the first line. From 1 to 4 is about three-fourths of the first line. Points 3 and 4 are joined by the coast-line slightly curved inward.

New York.—The first line of New York is Lake Champlain. Its length is 100 miles. From 2 to 3, from 3 to 4, and from 3 to 5 are each equal to the first line. The northern boundary of Massachusetts is midway between 2 nd 3. From 5 to 6 is two and one-fourth times the first l..e and is in line with the southern boundary of Massachusetts. From 6 to 7, and from 7 to 8 are each one-half of first line. Lake Ontario extends as far west as the State; its eastern shore is midway between Niagara River and the eastern boundary of the State, and the distance between the southern shore and the southern boundary of the State is three-fourths of the first line. The width of Lake Ontario is one-half the first line. From 9 to 1 is three-fourths of the first ..ne.

New Jersey.—The first line from 1 to 2 is 50 miles long. The vertical line from 1 to 3 is three and one-half times the first line. This line is bisected at 4, which marks the position of an important bend in the Delaware River. The northern bend of the Delaware River is about one-half the length of the first line, west of the vertical line, and the southern bend is nearly twice as far west as the northern. Point 3 marks the position of Cape May. Points 2 and 3 are connected by the Hudson River and the Atlantic coast, slightly curved outward.

Pennsylvania.—From 1 to 2 is the first line. Its length is 225 miles. This is trisected, and the distance from 1 to 5 is one-half the distance from 1 to 3. From 1 to 6 is one-half the distance from 1 to 5. From 5 to 7 is two-thirds of the first line, and the eastern extremity of the southern boundary at 8 is directly south of 2. The eastern boundary, formed by the Delaware River, is in the form of a W, turned thus ≷.

Delaware, Maryland, Virginia, and West Virginia. From 1 to 2 is 440 miles. It is divided into four equal parts. From 2 to 6 a vertical line is drawn one-half the length of the first line. From 6 to 7 is five-eighths of the first line, or the point 7 is vertically over a point midway between 3 and 4. The line from 6 to 7 is divided into four equal parts. From 7 to 13 is equal to, and from 8 to 9 is one-half the distance from 7 to 8. From 6 to 10 is one-half the distance from 6 to 8 and from 10 to 11 is one-third the distance from 6 to 10. From 11 to 12 is equal to the distance from 6 to 10.



DIRECTIONS FOR DRAWING THE GROUP.

Note.—After the pupils have learned to draw the above States singly, according to the directions given below, they should be taught to draw the group.

In grouping, draw in the following order: 1, North Carolina; 2, Tennessee; 3, Mississippi; 4, Alabama; 5, Georgia; 6, South Carolina; 7, Florida; 8, Louisiana; and 9, Arkansas.

The northern boundary of Tennessee is one-third longer than the first line of North Carolina. The northern boundary of Mississippi is one-third of the southern boundary of Tennessee, and the northern boundary of Alabama is two-thirds of the remaining portion of the southern boundary of Tennessee.

The southern boundary of Mississippi, from 5 to 6, constitutes the first line for Louisiana. The northern boundary of Louisiana bisects the western boundary of Mississippi. The northern boundary of Ark. is in line with the northern boundary of Tenn., and its length is equal to the width of the State.

MAP OF THE

SOUTHERN STATES.

By E. A. & A. C. Apgar.

Scale of Statute Miles.

25 50 75 100 125 150 175 200 225 250

125 Miles to an Inch.

DIRECTIONS FOR DRAWING.

North Carolina.—The first line from 1 to 2 is 330 miles long, or three-fourths of the southern boundary of Virginia. This line is trisected at 3 and 4. From 3 to 5, from 5 to 6, and from 2 to 7, are each one-third of first line, and the point 6 is south-east of the point 5. From 5 to the western extremity of the State, at 8, is five-sixths of first line, or two and one-half times the third of first line.

South Carolina.—The first line from 1 to 2 is 200 miles long. It is trisected at 3 and 4. From 4, the right-hand trisecting point, to the southern extremity of the State, at 5, is nearly equal to first line, and from 2 to 6 is one-half of first line in a south-east direction. Points 6 and 5 are connected by the coast, and 1 and 5 by the Savannah River.

Georgia.—The first line from 1 to 2 is 150 miles. The western boundary from 1 to 3, the boundary formed by the Chattahoochee River from 3 to 4, and the southern boundary from 4 to 5, are each equal to first line. The St. Mary's River, from 5 to 6, is one-third of first line, and the coast, from 6 to 7, is two-thirds of first line. Points 2 and 7 are connected by the Savannah River.

Alabama.—The first line from 1 to 2 is 150 miles long. From 2 to 3 is equal to, and from 3 to 4 is nearly equal to first line. From 4 to 5 is equal to first line. From 5 to 6, and from 6 to 7 are each one-third of first line. The line from 1 to 7, which forms the western boundary, has a small angle at its lower trisecting point.

Florida.—The first line is 150 miles long. From 2 to 3 is one-sixth of first line, and from 3 to 4 is equal to first line. The St. Mary's River, from 4 to 5, is one-third of first line. From the mouth of St. Mary's River a line is drawn towards the south, two and one-half times first line, which determines the southern limit of the State. From 6 to 7 is equal to first line, and at 7 a horizontal line is drawn, equal to first line in length, and extending equal distances east and west of the vertical line. From 2 to 10 is two-thirds, and from 1 to 11 is one-third of the first line.

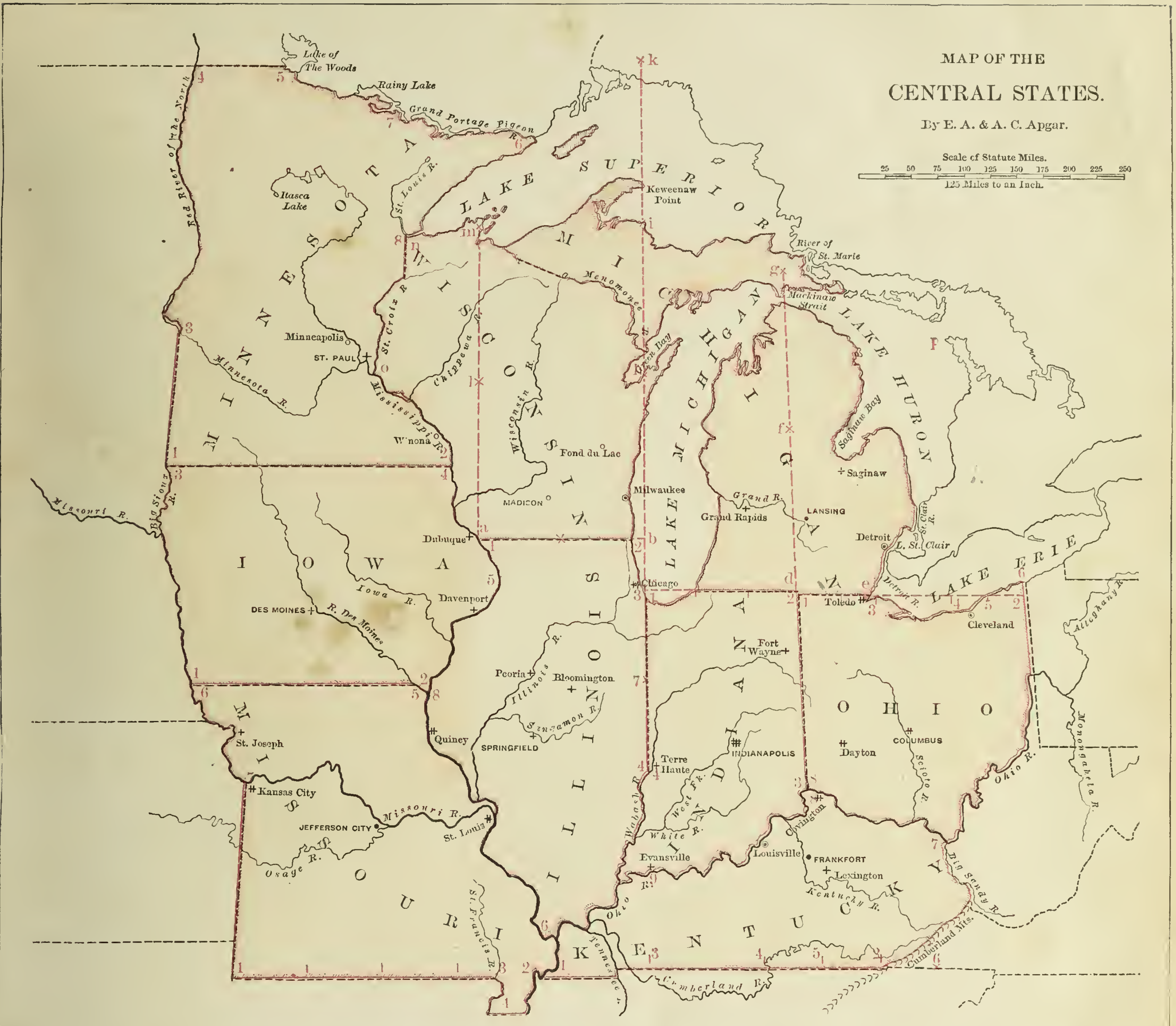
Mississippi.—The first line is 110 miles long. From 2 to 3 is three times first line; from 3 to 4 is a little more than one-half of first line, and from 4 to 5 is one-half of first line. From 5 to 6 is equal to first line. The Mississippi River forms small angles at its trisecting points, where it receives the waters of the Arkansas and Yazoo.

Louisiana.—The first line from 1 to 2 is 110 miles, or the same in length as the first line of Mississippi. From 1 to 3 is one and one-fourth times first line, and the point 3 is one-fourth of first line east of the point 1. From 3 to 4 is one and one-half times first line. From 4 to 5 is one-half of first line, and the Sabine River, from 5 to 6, is one and one-half times first line,—making the entire western boundary two times first line. From 2 to 7, from 1 to 8, and from 1 to 9, are each equal to first line.

Arkansas.—The first line from 1 to 2 is 250 miles long. From 2 to 3 and from 3 to 4 are each equal to one-sixth of first line. The width of the State, from 1 to 5, is equal to first line. From 5 to 6 is two-thirds of first line.

Tennessee.—The northern boundary, or first line, is 440 miles long, or the same as the southern boundary of Virginia. The width of the State, from 1 to 3, is one-fourth of first line, and the southern boundary, from 3 to 4, is three-fourths of first line.

Note.—It will be observed that the first lines of Georgia Alabama and Florida are equal in length. The first lines of Mississippi and Louisiana are also equal.



DIRECTIONS FOR DRAWING.

Michigan and Wisconsin.—The first line is the southern boundary of Wisconsin. It is 150 miles long. From b to c is one-third of the first line; from c to d is equal to the first line, and from d to e is one-half of the first line.

From a, b and d vertical lines are drawn. The middle one is three times, and each of the others two times the length of the first line.

The distance from the right-hand vertical line to the St. Clair River is three-fourths of the first line, and to the eastern shore of Lake Huron at p it is equal to the first line. To the right of f is Saginaw Bay, and at g is the projection of land between River St. Marie and Mackinaw Strait.

At h is Green Bay, at i the southern shore of Lake Superior, and at k the northern shore. Keweenaw Point touches this vertical line. At m is Point Detour, and the distance from m to n is one-half of the first line. The junction of the St Croix with the Mississippi at o is west of l a distance equal to two-thirds of the first line.

Illinois.—The first line from 1 to 2 is 150 miles long. From 2 to 3 is one-third of the first line, and from 3 to 4 is one and one-sixth times the first line The lines from 1 to 2 and from 3 to 4 are each bisected. The length of the State, from 5 to 6, is two and one-third times the first line, and the width, from 7 to 8, is one and one-third times the first line. Two-thirds of the boundary, from 4 to 6, is formed by the Wabash River, and the remaining third by the Ohio.

Indiana.—The first line, from 1 to 2, is 150 miles long, one-third of which is formed by Lake Michigan. The eastern boundary, from 2 to 3, is one and one-third times the first line, and the western boundary, from 1 to 4, is one and one-sixth times the first line. The boundary formed by the Wabash River, from 4 to 5, is two-thirds of the first line. Points 3 and 5 are joined by the Ohio River.

Ohio.—The first line, from 1 to 2, is 220 miles long. It is trisected at 3 and 4, and the right-hand division is bisected at 5. That portion of the northern boundary extending from 3 to 5 is formed by Lake Erie. The distance from 2 to 6 is one-half the distance from 2 to 5. From 2 to 7 is one-third of the first line, and the western boundary, from 1 to 8, is five-sixths of the first line, or equal to the distance from 1 to 5. Point 9 is south of the right-hand trisecting point of the first line at 4, and the distance from 4 to 9 is equal to the first line. Points 7, 9 and 8 serve as guides for drawing the Ohio River.

Kentucky.—The first line, from 1 to 2, is 330 miles long, or equal to the first line of North Carolina. This line is trisected at 3 and 4, and the right-hand division is bisected at 5. This first line is now extended to 6, a distance equal to one-sixth of its own length. From 6 to 7 is one-third, from 5 to 8 is one-half, and from 3 to 9 is one-quarter of the first line. Points 7, 8, 9 and 1 serve as guides for drawing the Ohio River.

Missouri.—The first line, from 1 to 2, is 280 miles long. From 2 to 3 and from 3 to 4 are each one-eighth of the first line. The width of the State is equal to the first line, and the eastern extremity of the northern boundary at 5 is a little east of the centre of the first line. The northern boundary, from 5 to 6, is three-fourths of the first line. The western boundary, from 1 to 7, is two-thirds of the width of the State. The bend of the Mississippi River, where it receives the waters of the Missouri, is midway between 2 and 5.

Iowa.—The first line from 1 to 2 is 210 miles long, or three-fourths the length of the first line of Missouri. The width of the State is equal to the first line. The northern boundary, from 3 to 4, is one and one-third times the first line, and it extends the same distance east and west of the extremities of the southern boundary. One-third of the western boundary is formed by the Big Sioux River, and two-thirds by the Missouri. The great bend of the Mississippi River at 5 is midway between 2 and 4.

Minnesota.—The first line from 1 to 2 is 280 miles long, or equal to the first line of Missouri. From 1 to 3 is one-half of the first line, and the boundary formed by the Red River of the North is nearly equal to the first line. From 4 to 5 is one-third of the first line, and from 5 to 6 is equal to the distance from 3 to 4. Point 7 bisects the distance from 5 to 6, and the distance from 7 to 8 is one-half of the first line.

MAP OF THE

UNITED STATES.

By E. A. & A. C. Apgar.

Scale 300 Miles to an Inch.

DIRECTIONS FOR DRAWING THE UNITED STATES.

Diagram.—1. Draw the horizontal line A B the length desired for the map, and divide it into four equal parts. This line coincides with parallel 49° north. It extends from Vancouver Island to the Gulf of St. Lawrence, and is 2800 miles long.

2. Draw the vertical lines A F, C G, and E H, each one-half the length of the first line, and connect F and H. Trisect the line A F at I and J, and the line E H at K and L.

3. Draw the oblique lines C K and B K. Extend the line F H to M, making G M equal in length to the oblique line C K, and connect B and M.

4. Trisect the line B M at N and O. Bisect the middle third of the line A F at 1, and trisect the lower half at 2 and 3. From the points 1 and 3 draw horizontal lines across the figure.

5. Trisect F G at P and Q, and draw D P. Bisect G H at R. Trisect F P at 4 and 5, and bisect G R at 6. Divide each of the oblique lines, C K and B K, into four equal parts, and bisect the line E K. Also bisect each of the thirds on the line B M.

6. Mark the point 17, making its distance from T equal to one division on the oblique line C K, and also on the line below mark the point 18, making its distance from U equal to one and one-half divisions on the oblique line. Bisect T K at 19.

7. Connect the points 11 and 15. From M draw the line M S one-sixth the length of B M. From 6 draw a line north to 20, equal in length to the distance from G to 6.

Outline.—1. Draw the forty-ninth parallel from A to C, for the northern boundary of the States, and at C, the centre of the first line, locate the Lake of the Woods.

2. The oblique lines, with their divisions, serve as guides for drawing the Great Lakes and the St. Lawrence. Lake Superior crosses at 7, and its northern shore touches the line A B. The western shore of Lake Michigan crosses at 8 and at 19. Saginaw Bay touches at 9, and the southern extremity of Lake Huron touches between 9 and K.

3. Lake Erie surrounds the point at K; the northern shore of Lake Ontario crosses at 10, and midway between these points is the Niagara River. The northern part of Maine crosses at 12.

4. The line B M, with its divisions, marks the direction of the Atlantic Coast, and the position of several important features. The eastern boundary of Maine crosses at 14, and the southern coast crosses midway between 14 and N. At N the coast again crosses, and forms Cape Cod without the line. Opposite 15 is Delaware Bay, and at O is Cape Hatteras. From this point to M the coast makes quite a bend within the line.

5. At S is Cape Sable. The western shore of Florida crosses at H; at R is the mouth of the Mississippi, and near G is the coast of Texas. At Q is an important bend in the Rio Grande, and south of the middle point between Q and G is the mouth of this river. Between 4 and 5 is the Peninsula of California. The southern boundary of California is midway between 3 and F.

5. The western shore of California is west of the line A F, equal to the distance from 1 to 3. San Francisco Bay is west of 2, and the point where the coast crosses the line A F is south of J, equal to the distance from 3 to J.

The States.—After completing the outline, draw the Mississippi River, and then draw the States in the following order:—

1. The New England States.
2. The Middle States.
3. The Southern States, east of the Mississippi River.
4. The Western States, east of the Mississippi River.
5. The five States bordering the Mississippi on the west.
6. California.
7. Arizona, New Mexico, Indian Territory, and Texas.
8. Nevada, Utah, Colorado, and Kansas.
9. Washington, Oregon, and Idaho.
10. Montana, Wyoming, Dakota, and Nebraska.

Note.—The Mississippi River rises a little south of the Lake of the Woods, and flows south-easterly, till it crosses the line I N at 17. It here makes a curve to the east, and then a larger one to the west, and crosses at 18. From this point to 20 it flows a little west of south. From 20 its course is south-east.

The Eastern States are all east of the line from 11 to 15. The Middle States are east of the line E H. The northern boundaries of Arkansas, Tennessee, and North Carolina coincide with the horizontal line drawn through U, and the northern boundaries of Arizona, New Mexico, and Indian Territory are a little north of this line. The northern boundaries of California, Nevada, Utah, Indiana, Ohio, Pennsylvania, Connecticut, and Rhode Island are a little south of the line I N. The western boundaries of Missouri, Arkansas, and Louisiana coincide closely with the vertical line C G. The western boundaries of Wyoming, Colorado, and New Mexico lie in the direction of the line D P—that of Wyoming being west of it, and that of Colorado and New Mexico being east of it.

PRONOUNCING VOCABULARY.

KEY TO THE REPRESENTATION OF SOUNDS.

ay, as *a* in fate;	ă, as *a* in fat;	ī, as *i* in pine;	ŏ, as *o* in not;	ū, as *u* in pure;	n̄, as *ni* in onion;	ch is to be pronounced as in church;
ah, as *a* in far;	ĕ, as *e* in met;	ĭ, as *i* in pin;	oo, as *oo* in boot;	ŭ, as *u* in tun;	*th*, as *th* in then;	zh represents the sound of *z* in glazier;
aw, as *a* in fall;	e or ee, as *ee* in keel;	o ō, or ōw, as *o* in no;	ōw, as *ou* in our,	gh, as *g* in get;	th, as *th* in thin;	s, that of *s* in grass.

A.

Aberdeen, ab-er-deen′.
Abomey, ab-o-may′.
Abyssinia, ab-is-sin′e-ah. ("Mixed people:" so named by the Arabs, as showing that the people were not of pure Arab blood.)
Acapulco, ah-kah-pool′ko.
Acaray, ah-kah-rī′.
Aconcagua, ah-kon-kah′gwah.
Aden, ah′den, *or* ay′den.
Adirondack, ad-e-ron′dak.
Adrianople, ad-re-an-o′p'l. ("City of Adrian.")
Afghanistan, ahf-gahn-is-tahn′. ("Country of the Afghans.")
Agulhas, ah-gool′yahs. (Cape Agulhas, "Cape Needles.")
Alabama, ăl-ă-bah′mah. ("Here we rest:" said to have been so named by a peaceful tribe of Indians driven thither.)
Alaska, ah-lahs′kah.
Aleutian, ah-loo′shan. (From *aleut*, a "bold rock.")
Alleghany, ăl-le-gay′ne.
Almaden, ahl-mah-*then*′.
Altai, ahl-tī′.
Altamaha, awl-tah-mah-haw′.
Amoo, ah-moo′.
Amoor, ah-moor′.
Am′sterdam. (From *Amsteldam*, "dam [or dike] of the Amstel.")
Andaman′.
Andes, an′des. (From a Peruvian word signifying "copper.")
Anglesea, ang′g'l-se.
Anticosti, an-te-kos′te.
Antilles, ahn-teel′, *or* an-til′lees.
Apalachee, ap-ah-lah′che.
Apalachicola, ap-pah-lah-che-ko′lah.
Appalachian, ap-pa-la′che-an.
Appomat′tox.
Aral, ăr′al. (Sea of Aral, "sea of islands.")
Archipelago, ar-ke-pĕl′ă-go.
Ardennes, ar-den′.
Arequipa, ah-ray-ke′pah.
Argentine, ar′jen-teen.
Arica, ah-rē-kah.
Arkan′sas.
Ashantee, ahsh-ahn-te′.
Assouan, ahs-soo-ahn′.
Asuncion, ah-soon′se-on.
Atacama, ah-tah-kah′mah.
Atbara, at-bah′rah.
Atchafalaya, atch-ă-fă-li′ah. ("Lost water.")
Athabasca, ath-ă-bas′kah.
Australasia. ("Southern Asia.")
Australia. ("Southern.")
Avon, ay′vŏn.
Azores, az′ōrz, *or* az-ōrz′. (From Port. *açor*, a "hawk," a number of these birds being found there.)
Az′ov.

B.

Babelmandeb, bahb-el-mahn′deb. ("The gate of tears.")
Bahia, bah-hē-ah.
Baikal, bī′kahl. ("Rich lake." It abounds in fish.)
Balearic, băl-e-ăr′ik. (From *baleares*, "slingers." These islands produced the best slingers in the world.)
Balize, bă-leez′. (This is a corruption of *Waliz*, which the Spaniards called this place on account of its being the resort of a noted pirate named Wallice.)
Balkan, bahl-kahn′.
Balkash, bahl-kahsh′.
Barbadoes, bar-bay′doze.
Basle, bahl.
Baton Rouge, bat′un-roozh′. ("Red stick.")
Bayou la Fourche, bī′oo-lah-foorsh′.
Beaufort (U. S.), bū′fut.
Beirout, bay′root.
Beled-el-Jerid, bel′ed el-je-reed′. ("Land of dates.")
Belleisle, bel-ile′. ("Beautiful island.")
Beloochistan, bel-oo-chis-tahn′. ("Country of the Beloochees.")
Benares, ben-ah′rēz.
Bengal, hen-gawl′.
Benguela, hen-gay′lah.
Benin, ben-een′.
Ben Ne′vis.
Bergen (Norway), bĕrg′en.
Bermudas, ber-moo′daz. (Named after Bermudez, their discoverer, 1522.)
Biddeford, bid′de-fŭd.
Bogota, bo-go-tah′.
Boisé, hwah-zay′.
Bokhara, bo-kah′rah.
Bonifacio, bo-ne-fah′cho.
Bordeaux, bor-do′.
Borgne, born.
Bosphorus, bos′fo-rŭs. ("Ox-ford.")
Bougainville, boo-gan-veel′.
Boulogne, boo-lōn′.
Brahmaputra, brah-mah-poo′trah. ("Son of the Creator.")
Brazos, brah′zos.
Breslau, bres′law, *or* bres′lōw.
Brus′sels.
Bucharest, boo-kah-rest′. ("City of enjoyment")
Buda, bū′dah, *or* boo-dah.
Buenos Ayres, bwā′-nos-ī′-rees. ("Good air.")
Bug, boog.

C.

Cabul, kah-bool′.
Cadiz, kay′diz.
Caernarvon, ker-nar′von.
Caffraria, kaf-fray′re-ah. ("Country of the Caffirs or Infidels," a name given by the Arabs to all who did not accept the Mohammedan religion.)
Cairo (U. S.), kay′ro.
Cairo (Egypt), kī′ro. ("The victorious.")
Calais (Me.), kăl′is.
Calais (France), kah-lay.
Callao, kahl-lah′o, *or* kahl-yah′o.
Canandaigua, kan-an-day′gwah.
Canav′eral.
Candahar, kahn-dah-har′.
Cantabrian, kan-tay′bre-an.
Cape Breton, brit′t'n.
Caqueta, kah-kay′tah.
Caraccas, kah-rah′kahs.
Caribbean, kăr-rih-be′an.
Cassiquiare, kah-se-ke-ah′ray.
Cattegat, kat′te-gat. ("Cat's gate.")
Cauca, kōw′kah.
Caucasus, kaw′kă-sus. ("White mountain.")
Cayenne, kī-en′.
Cayuga, kay-yoo′gah.
Celebes, sel′e-bēz.
Cevennes, say-ven′.
Champlain, sham-plain′.
Chandeleur, shan-dĕh-loor′.
Chattahoochee, chat-tă-hoo′che.
Chesuncook, che-sun′kook.
Cheviot, chiv′e-ot, *or* chev′e-ot.
Cheyenne, she-en′.
Chicago, she-kaw′go.
Chiloe, che-lo-ay′.
Chimborazo, chim-bo-rah′zo.
Chincha, chin′chah.
Chonos, cho′nōs.
Chowan, cho-wawn′.
Cologne, ko-lōwn′. (From *colonia*, a "colony.")
Concord, kong′kŭd.
Connecticut, kon-net′e-kut.
Coo-mas′sie.
Cordova, kor′do-vah.
Corrientes, kor-re-en′tēz. (A "current." There is a strong current in Mozambique Channel, off Cape Corrientes.)
Cotopaxi, ko-to-pax′e.
Crimea, krim′e-ah.
Cuenca, kwen′kah.
Curaçoa, kū-ră-so′ah.
Cuzco, kooz′ko.
Cyclades, sik′lah-deez.

D.

Dahomey, dah-ho′may.
Dakota, dah-ko′tah.
Delgado, del-gah′do
Delhi, del′le.
Des Moines, de-moin′.
Dhawalaghiri, dah-wol-ah-ghe′re.
Dinaric, de-năr′ik.
Dnieper, ne′per.
Dniester, nees′ter.
Dongola, dong′go-lah.
Dordogne, dor-dōwn′.
Douro, doo′ro.
Dovrefield, do′vrĕh-fe-eld′. (From *dovre*, the name of a village, and *field*, a "mountain-ridge.")
Drave, drah′veh.
Dubuque, du-buke′.
Duluth, doo-looth′.
Dwina, dwī′nah, *or* dwe′nah.

E.

Ecuador, ek-wah-dōr′. ("Equator." So named from its situation, being intersected by the equinoctial line.)
Edinburgh, ed′in-bŭr-rŭh. (Name supposed to be derived from Edwin, a king of Northumberland.)
Elborz′. ("Peaked mountains.")
Enikale, en-e-kah′lay.
Essequibo, es-sĕh-ke′bo.
Euphrates, yoo-fray′teez. ("To make glad." This river, like the Nile, annually overflows its banks, thereby fertilizing the adjacent country.)

F.

Falkland, fawk′land.
Faribault, far-e-bo′.
Finisterre, fin-is-tair′. ("Land's end.")
Fond du Lac, fond-doo-lahk′. ("Bottom of the lake.")
Formosa, for-mo′sah. ("Beautiful.")
Funen, foo′nen.

G.

Gallinas (S. A.), gahl-ye′nahs.
Galway, gawl′way.
Garonne, gah-rōn′.
Genoa, jen′o-ah.
Geral, zhay-rahl′.
Gibraltar, je-brawl′ter. (In the eighth century, Tarif, with an army of Saracens, landed here and built a castle on the rock, which was called Gib-el Tarif—*i. e.*, the Mountain of Tarif, whence the present name.)
Gila, he′lah.
Gironde, je-rōnd′.
Glasgow, glas′gō.
Gloucester, glos′ter.
Gobi, go′be.
Godavery, go-dah′ver-e.
Granada, grah-nah′dah.
Greenwich (Eng.), grin′ij.
Guadalquivir, gwaw-dal-kwiv′er. (The "great river.")
Guadarama, gwah-dah-rah′mah.
Guadeloupe, gwaw-dĕh-loop′.
Guadiana, gwah-de-ah′nah.
Guanaco, gwah-nah′ko.
Guanape, gwah-nah′pe
Guardafui, gwahr-dah-fwe′.
Guatemala, gwaw-tay-mah′lah.
Guayaquil, gwī-ah-keel′.
Guiana, ghe-ah′nah.
Guinea, ghin′ne.

H.

Hainan, hī-nahn′. ("South of the sea.")
Hakodate, hah-ko-dah′te.
Havre, hahver. (A "harbor," or "haven.")
Hawai, hah-wī′e.
Hā′yel.
Hayti, hay′te ("Mountainous.")
Hebrides, heb′rid-eez.
Helena, hel-e′nah.
Henlo′pen.
Herat, her-aht′.
Himalaya, him-ah-lī′ah. ("Abode of snow.")
Hindoostan, hin-doo-stan′. (In Persian, this term signifies the "country of the Hindoos." *Hindoo* also signifies "black," and *stan*, "country"—*i. e.*, the "country of the blacks," the Hindoos being darker than the Persians. It may be derived from *Indus*, a "river.")
Hoang-Ho, ho-ahng-ho′. ("Yellow river.")
Hol′land. ("Muddy or marshy land." Originally *Ollant*. A large portion of Holland lies below the level of the sea: hence the name Netherlands.)
Holyhead, hŏl′e-hed.
Holyoke, hŏl′yoke.
Hondo, hone′do.
Huallaga, wahl-yah′gah.
Hue, hway, *or* hoo-ay′.
Hungary, hung′gă-re. (Name derived from the "Hunni," or "Huns," who took possession of this country toward the close of the fourth century.)

I.

I′daho.
Illinois, il-lin-oy′.
Inverness′.
Iowa, ī′o-wah.
Iran, e-rahn′.
Irrawaddy, ĭr-rah-wŏd′de. ("Great river.")
Islay (Hebrides), ī′lay.
Iviça, e-vē-zah.

J.

Javary, hah-vah-re′.
Joannes, zho-ahn′nĕs.
Ju′an de Fu′ca.
Ju′an Fernan′dez.
Juniata, joo-ne-ah′tah.

K.

Kalahari, kah-lah-hah′re.
Kalamazoo, kăl-ă-mă-zoo′.
Kamchatka, kahm-chaht′kah.
Kanawha, kă-naw′wah.
Kankakee, kăn-kay-kee′.
Kano, kah-no′.
Kansas, kan′zas. ("Smoky water.")
Kara, kah′rah.
Katahdin, kă-tah′din.
Kearsarge, keer′sarj.
Keweena, ke-we′nah.
Khiva, ke′vah.
Khokan, ko-kahn.

Kilimandjaro, kil-e-mahn-jah-ro′.
Kioto, ke-o′to.
Kiolen, keer′-len.
Kiushiu, ke-yu′shu.
Kobe, kō′bay.
Kodiak, ko′de-ahk.
Kordofan, kor-do-fahn′.
Kouka, koo′kah.
Kuen-Lun, kwen-loon′.
Kunchinginga, koon-chin-jing′gah.
Kurile, koo′ril. (Derived from *kooroo mitsi—i. e.*, the "road of sea-weeds." *Kooroo* signifies "sea-weed.")
Kyachta, ke-ahk′tah.

L.

Laaland, law′lahnd (lowland).
Labrador, lab-rā-dōr. (*Labrador* signifies a "husbandman," or "farmer." This land was called *terra labrador*, "cultivable land," to distinguish it from Greenland.)
Laccadive, lahk′kā-div.
Ladrone, lah-drōn′. (These were discovered in 1521, by Magellan, and called by him *Las Islas de los Ladrones—i. e.*, "the islands of the thieves," because he found the natives so dishonest.)
La Guayra, lah-gwi′rah.
Lamoille, lah-moil′.
La Paz, lah-pahz′.
Lassa, lahs′sah. ("Land of the divine intelligence." The grand temple of Buddha, with its gilded dome, is here; also, the residence of the Grand Lama.)
Leeuwin, loo′in.
Leghorn, leg′horn.
Leicester, les′ter.
Leipsic, lip′sik.
Leith, leeth.
Lena, le′nah. (A "sluggard:" so named on account of its sluggish course.)
Lepanto, le-pan′to.
Lewes, loo′is.
Lichtenfels, lik′ten-felz.
Liége, leej, *or* le-aizh′.
Lille, leel.
Lima, le′mah.
Lipari, lip′ah-re.
Liu Kiu, le-oo′ ke-oo.
Llanos, ′lyah′nōs. (*Llanos*, "plains." A term applied to the extensive plains of South America—the same as prairies in North America or steppes in Russia.)
Lobos, lo′bōs.
Loffo′den.
Loire, lwahr.
Los Angeles, lōs an′jeh-lez.
Lough Neagh, lō-nay′.
Louisville, loo′is-vil.
Lucknow, luk′nōw.
Luzon, loo-zōn′.

M.

Macao, mah-kōw′.
Machias, mā-chi′as.
Madeira, mah-day′rah. (*Madeira* signifies, in Portuguese, "timber." These islands were so named on account of their magnificent forests. The Madeira River flows through a densely-wooded region.)
Madras, mā-dras′.
Madre de Dios, mah′dray day de′ōs.
Magdalena, mag-dā-le′nah, *or* mahg-dah-lay′nah.
Maimatchin, mī-mah-cheen′.
Maldive, mal′dive. ("Thousand isles.")
Manitouline, man-e-too-leen′.
Mantchooria, man-choo′re-ah.
Maracaybo, mah-rah-ki′bo.
Marañon, mah-rahn-yōn.
Margarita, mar-gah-re′tah. (A "pearl." Pearls were formerly found in great quantities on the coasts of this island.)
Marmora, mar′mo-rah. ("Marble." One of the islands of this sea has long been celebrated for its marble-quarries.)
Marquesas, mar-kay′zŭs.
Marseilles, mar-saylz.
Mattapony, mat-tā-po′ne.
Medina, may-de′nah. ("The City.")
Meinam, may-e-nahm′. ("Mother of waters.")
Melbourne, mel′burn.
Memphremagog, mem-fre-may′gog.
Menai, men′i.
Mendocino, men-do-se′no.
Mequinez, mek′e-nĕz.
Merrimack, mĕr′re-mak.
Mersey, mer′ze.
Messina, mes-se′nah.
Meuse, mūze.
Miami, mī-ah′me.
Michigan, mish′e-gan.
Mil′an, or mi-lăn′.
Missisque, mis-sis′kwe.
Missouri, mis-soo′re. ("Smoky water," or "mud river.")
Mohave, mo-hayv′.
Montana, mon-tah′nah.
Montevideo, mon-te-vid′e-o. ("Mount prospect." It is situated on a slight elevation.)
Montreal, mon-tre-awl′. ("Royal mount.")
Moriato, mo-re-ah′to.
Moscow, mos′ko.
Moselle, mo-zel′.
Mount Desert, de-zert′.
Munich, mū′nik.
Muscatine, mus-kā-teen′.

N.

Nagasaki, nah-gah-sah′ke.
Nagoya, nah′go yah.
Nantuck′et.
Natal, nah-tahl′. (So named by Vasco da Gama because he discovered this coast on Christmas day [the day of the Nativity].)
Nebraska, ne-bras′kah. ("Flat water.")
Nejed, ned′jed.
Nerbudda, ner-bud′dah.
Neuse, nūs.
Nevada, ne-vah′dah.
Newfoundland, nū′fund-land.
New Orleans, nū or′le-ŭnz.
Ngami, ′n-gah′me.
Niagara. ("Thunder of waters.")
Nice, nees.
Niemen, ne′men.
Niger (ni′jer), *or* Quor′ra, *or* Jol′iba. ("The great dark river.")
Nijni Novgorod, nizh′ne nov-go-rod′.
Nueces, nway′sĕs.
Nyanza, ′n-yahn′zah.
Nyassi, ′n-yahs′se.

O.

Oahu, wah′hoo.
Ochotsk, ō-kōtsk′.
Ocmulgee, ōk-mul′ghe.
Oconee, ōk-ō′ne.
Ogeechee, ō-ghe′che.
Ohio. (The "beautiful river.")
Okechobee, ō-ke-chō′be.
Omaha, o′mā-haw.
Onega, o-ne′gah.
Oneida, o-ni′dah.
Orinoco, o-re-no′ko. (The "coiled serpent.")
Oswe′go.
Ottawa, ot′tā-wah, *or* ot′tā-way.
Ouse, ooz.
O′zaka.

P.

Pamunky, pā-mung′ke.
Panama, pah-nah-mah′.
Para, pah-rah′.
Paraguay, pah-rah-gwi′.
Paramaribo, păr-ā-măr′e-bo.
Parana, pah-rah-nah′.
Parime, pah-re′may.
Parina, pah-re′nah.
Pascagoula, pas-kā-goo′lah.
Passaic, pas-say′ik.
Passamaquoddy, pas-sā-mā-kwod′de.
Patagonia, pat-ā-go′ne-ah. (*Patagon* means, in Spanish, "a man with large feet." Magellan gave the inhabitants of this country the name of Patagonians on account of the apparent large size of their feet, which, being wrapped in skins, seemed much larger than they really were.)
Pawtuck′et.
Peipus, pay′e-poos.
Pembina, pem′be-nah.
Pennsylvania. ("Penn's woodland.")
Penob′scot.
Pernambuco, pĕr-nahm-boo′ko.
Pesth, pest.
Petch′o-ra.
Pictou, pik-too′.
Pilcomayo, pil-ko-mi′o.
Piscataqua, pis-kat′ā-kway.
Pontchartrain, pon-shar-trayn′.
Popayan, po-pī-ahn′.
Popocatapetl, po-po-kah-tah-pet′l′. ("Smoking mountain.")
Port au Prince, pōrt-ō-prins′.
Port Said, sah′eed.
Potomac, po-to′mak.
Potosi, po-to′se, *or* po-to-se′.
Prairie du Chien, pray′re doo-sheen′. ("Dog meadow.")
Prussia, prush′ah.
Pruth, proot.
Purus, poo′roos.
Putumayo, poo-too-mī′o.
Pyrenees, pĭr′en-eez.

Q.

Quebec, kwe-bek′. ("The Narrows.")
Quito, ke′to.

R.

Raleigh, raw′le.
Rapidan, rap-id-an′.
Rappahan′nock.
Reikiavik, ri′ke-ah-vik. ("Steam-town.")
Richelieu, reesh-el-yu.
Riga, re′gah.
Rio de la Plata, rē-o day-lah-plah′tah.
Rio Grande, re′o grahn′day. ("Great river.")
Rio Janeiro, rē-o jah-nay′ro. (Rio de Janeiro, "river of January." The place having been discovered in January, this name was given afterwards both to the city and the river.)
Rio Negro, re′o nay′gro. ("Black river.")
Rot′terdam. (Name signifies "dam of the Rotte," a little river which runs through the city.)
Rouen, roo′en.
Russia, rush′ăh.

S.

Sabine, sah-been′.
Saco, saw′ko.
Saghalin, sah′gah-leen.
Saigon, si-gōwn′.
Saima, si′mah.
Saltado, sah-lah′do. ("Salt.")
San Diego, de-ay′go.
San Joaquin, sahn hwa-keen′.
San José, ho-say′.
San Salvador, sahn sahl-vah-dōr′. ("Holy Saviour.")
Santa Fé, fay. ("Holy Faith.")
Santiago, sahn-te-ah′go. ("Saint James.")
Saone, sōn.
Saranac, săr-ā-nak′.
Saskatchawan, sas-katch′ă-wŏn. ("Swift current.")
Saut St. Marie, sō saint may-re′.
Save, sah′veh.
Schenectady, sken-ek′tā-de.
Schoodic, skoo′dik.
Schuylkill, skool′kil. (It is said that the first explorers of the Delaware River passed the mouth of the Schuylkill without observing it: hence its name, signifying "hidden creek.")
Sebastopol or Sevastopol, sev-as-tō′p′l.
Seine, sayn.
Senegal, sen-e-gawl′.
Senegambia, sen-e-gam′be-ah. (Named from the two large rivers which flow through the country—viz., the Senegal and the Gambia.)
Severo, say-vay′ro.
Seville, se-vil′,
Shanghai, shang-hī′.
Shenandoah, shen-an-do′ah.
Shikoku, she-ko′ku.
Sierra, se-ĕr′rah. (Sierra literally means a "saw," and is applied to a mountain range, because at a distance it presents a notched appearance like the teeth of a saw.)
Sierra Leone, se-ĕr′rah le-o′ne. ("Lion mountains.")
Sierra Madre, se-ĕr′rah mah′dray.
Sierra Morena, se-ĕr′rah mo-ray′nah.
Sierra Nevada, se-ĕr′rah nay-vah′dah. ("Snow mountains.")
Sihon, se-hon′.
Sinai, si′nay, *or* si′nay-i.
Singapore, sin-gah-pōr′. ("City of lions.")
Sioux, soo.
Skager Rack, skah-gher-rahk′. ("Crooked strait of Skagen.")
Sli′go.
Sofala, so-fah′lah.
Sokoto, sok-o-to′.
Spitzbergen, spitz-berg′en.
Stanovoi, stah-no-voy′.
Staten, stăt′n.
St. Augustine, aw-gus-teen′.
St. Blas, blahs′.
St. Croix, kroy′.
St. Louis, loo′is.
Stromboli, strom′bo-le.
Sucre, soo′kray,
Sudetic, soo-det′ik.
Suez, soo′ez.
Sumatra, soo-mah′trah.
Suwanee, soo-waw′ne.
Swansea, swon′se.

T.

Tabatinga, tah-bah-tin′gah.
Taconic, tah-kon′ik.
Tahiti, tah-he′te.
Tampico, tahm-pe′ko.
Tanganyika, tahn-gahn-ye′kah.
Tapajos, tah-pah′zhōs.
Taunton, tahn′tun.
Terre Haute, tĕr-rĕh-hote′. ("High land.")
Thames, temz.
Theiss, tīs.
Thian-Shan, te-ahn-shahn′. ("Celestial mountains.")
Thibet, tib′et. (One of its native appellations signifies the "snowy region of the north.")
Thuringian, thoo-rin′je-an.
Ti′ber. (This river was originally called *Albula*, from the clearness of its waters, and afterward *Tiberis*, from Tiberinus, king of Alba, who was drowned there.)
Tierra del Fuego, te-er′rah del foo-ah′-go ("Land of fire." This island was discovered, in 1520, by Magellan, and so named by him on account of the number of fires he saw along the coast, which he supposed to be the eruptions of volcanoes.)
Timbuctoo, tim-buk′too.
Titicaca, te-te-kah′kah.
Tocantins, to-cahn-teens′.
Tokio, to′ki-o.
Tonquin, ton-keen′.
Torres, tor′rēz.
Tortugas, tor-too′gŭz. (So named from the quantity of tortoises seen there. *Tortuga* means "tortoise.")
Toulouse, too-loos′.
Tours, toorz
Trans Vaal, trahns-vahl′.
Trieste, tre-est′.
Tripoli, trip′o-le. ("Three cities." Three large towns formerly occupied the site of the present Tripoli.)
Truxillo, troo-heel′yo.
Tunguragua, toon-goo-rah′gwah.
Turkestan, toor-kes-tahn′. ("Country of the Turks.")
Tyrol, tir-rōl′.

U.

Ucayale, oo-ki-ah′lay.
Uist, wist.
Umbagog, um-bay′gog.
Upernavik, oo′per-nah′vik.
Upsal, oop′sahl.
Ural, oo′rahl.
Uruguay, oo-roo-gwi′.

V.

Valdai, vahl′dī.
Valparaiso, vahl-pah-ri′so. ("Vale of paradise.")
Venezuela, ven-ez-we′lah.
Vera Cruz, vay′rah krooz. (The "true cross.")
Verd (Cape). ("Green" cape.)
Vindhya, vind′yah.
Vistula, vis′tū-lah.
Vosges, vōzh.

W.

Wabash, waw′bash.
Wachusett, waw-choo′set.
Washita, wŏsh′e-taw.
Wieliczka, v′yay-litch′kah.
Willamette, wil-lah′met.
Winnipiseogee, win-ne-pe-saw′ke. ("Beautiful lake among the highlands.")
Winooski, we-noos′ke.
Woonsocket, woon-sok′et.
Worcester, woos′ter.
Wyoming, wi-o′ming.

X.

Xingu, shing-goo′.

Y.

Yablonoi, yah-blo-noy′. ("Mountains of apples.")
Yang-tse-Kiang, yahng-tse-ke-ahng′. ("Blue River." Called sometimes Ta Kiang—*i. e.*, "great river"—the largest river in China. It is called, poetically, the "son of the sea."
Yenisei, yen-e-say′e.
Yezo, yay′zo.
Yukon, yoo-kōwn′.

Z.

Zambesi, zahm-bay′ze.
Zealand, ze′land. ("Sea-land.")
Zurich, zoo′rik.
Zuyder Zee, zī-der-ze′. ("South Sea." In contradistinction to the North Sea, with which it is connected.)

GEOGRAPHICAL AND STATISTICAL TABLES.

AREA AND POPULATION OF THE DIFFERENT COUNTRIES OF THE WORLD.

NORTH AMERICA.

NORTH AMERICA.	Area in sq. miles.	Population.
Danish America { Greenland	720,000	9,880
Danish America { Iceland	39,753	66,987
British America	3,524,095	3,886,798
United States (including Alaska)	3,611,849	38,923,210
Mexico	761,640	9,173,052
Central America	171,003	2,665,000
West Indies	92,248	4,087,149
Balize, and several Islands	13,581	29,606
Total	8,934,169	58,841,682

SOUTH AMERICA.

SOUTH AMERICA.	Area in sq. miles.	Population.
Venezuela	368,220	1,565,000
United States of Colombia	514,000	2,794,473
Ecuador	285,350	1,040,371
Peru	510,100	2,500,000
Bolivia	565,000	1,987,352
Chili	132,609	1,908,350
Argentine Confederation	542,800	1,465,000
Uruguay	71,737	240,965
Paraguay	89,252	1,337,439
Brazil	3,430,000	11,780,000
British Guiana	76,000	155,026
Dutch Guiana	58,800	110,118
French Guiana	35,080	24,432
Patagonia	356,000	200,000
Falkland Islands	7,600	592
Total	7,042,548	27,109,118

EUROPE.

EUROPE.	Area in sq. miles.	Population.
Sweden }	170,651	4,168,882
Norway }	122,323	1,729,691
European Russia	2,266,983	71,195,394
Great Britain and Ireland	121,115	31,817,108
Malta, Gibraltar and Heligoland	145	157,500
Denmark (with Faroe Islands)	14,752	1,794,733
Holland	13,678	3,888,295
Belgium	11,372	5,021,336
France	204,071	36,594,845
Spain	192,959	16,374,944
Portugal (with Madeira and Azores)	35,811	4,360,974
Germany	210,211	40,115,748
Austria	240,371	35,904,435
Switzerland	15,991	2,669,095
Italy	114,297	26,775,000
European Turkey	199,290	16,342,000
Greece	19,352	1,457,894
San Marino, Andorra and Monaco	183	22,430
Total	3,953,555	300,390,304

AFRICA.

AFRICA.	Area in sq. miles.	Population.
Marocco	303,100	8,500,000
Algeria	258,305	2,921,000
Tunis	43,204	950,000
Tripoli	344,401	750,000
The Sahara	2,000,000	1,500,000
Egypt (including Nubia)	659,073	7,366,000
Abyssinia	97,000	4,500,000
Zanguebar	120,000	300,000
Mozambique, Zambesia, &c	287,037	1,000,000
Cape Colony and Natal	223,237	820,000
Caffraria, Orange River and Transvaal	144,000	800,000
Country of the Hottentots	240,000	300,000
Senegambia	200,000	12,000,000
Liberia	20,000	718,000
Guinea	844,477	30,114,000
Soudan	1,600,000	50,000,000
Region of Negro Tribes	4,100,000	46,000,000
Madagascar	228,500	2,500,000
Other Islands	10,000	1,700,000
Total	11,733,834	174,239,000

ASIA.

ASIA.	Area in sq. miles.	Population.
Asiatic Turkey	672,486	16,463,000
Asiatic Russia	5,861,348	7,925,000
West Turkestan	493,000	8,000,000
East Turkestan	490,000	5,500,000
Chinese Empire	3,663,000	469,508,000
Japan	169,000	33,300,000
Hindoostan	1,652,272	198,128,000
Indo China { Birmah	184,000	8,000,000
Indo China { Siam	261,800	6,000,000
Indo China { Anam	174,000	16,000,000
Indo China { Malacca and other Provinces	89,095	2,176,000
Afghanistan	210,000	4,000,000
Beloochistan	192,000	2,000,000
Persia	648,000	10,000,000
Arabia	982,000	4,300,000
Total	15,742,000	795,000,000

ISLANDS.

ISLANDS.	Area in sq. miles.	Population.
Malay Islands.		
Borneo	260,000	3,000,000
Sumatra	125,000	2,500,000
Java	51,980	16,010,000
Philippine	65,637	4,319,000
Celebes	45,709	341,000
Spice, and other Islands	70,000	1,000,000
Australasia.		
Australia	2,449,596	1,551,000
Tasmania	26,215	99,000
New Zealand	106,259	238,000
Papua, and other Islands	347,000	600,000
Polynesia.		
Sandwich Islands	7,631	63,000
Other Groups and Islands	144,000	381,000
Total	3,699,027	30,102,000

RECAPITULATION.

Area and Population of the World.	Area in sq. miles.	Population.
North America	8,934,169	58,841,682
South America	7,042,548	27,109,118
Europe	3,953,555	300,390,304
Asia	15,742,000	795,000,000
Africa	11,733,834	174,239,000
Oceanica	3,699,027	30,102,000
Antarctic Land	100,000	
Total	51,205,133	1,385,682,104

SURFACE OF THE EARTH.

The area of the entire surface of the globe is estimated at nearly 200,000,000 square miles, of which a little more than 50,000,000 miles are land, and somewhat less than 150,000,000 are water.

Area of the Land-Surface.	Sq. miles.
Eastern Continent	32,269,000
Western Continent	15,896,000
Oceanica	3,425,000
Total	51,590,000

Area of the Water-Surface.	
Pacific Ocean	72,000,000
Atlantic Ocean	35,000,000
Indian Ocean	28,000,000
Antarctic Ocean	8,500,000
Arctic Ocean	4,500,000
Total	148,000,000

The United States in Detail.

States.	Capitals.	Area in sq. miles.	Population in 1870.
Maine	Augusta	35,000	626,915
New Hampshire	Concord	9,280	318,300
Vermont	Montpelier	10,212	330,551
Massachusetts	Boston	7,800	1,457,351
Rhode Island	Providence and Newport }	1,306	217,353
Connecticut	Hartford	4,750	537,454
New York	Albany	47,000	4,387,464
Pennsylvania	Harrisburg	46,000	3,521,890
New Jersey	Trenton	8,320	906,096
Delaware	Dover	2,120	125,015
Maryland	Annapolis	11,124	780,894
Virginia	Richmond	38,352	1,225,163
West Virginia	Wheeling	23,000	442,014
North Carolina	Raleigh	50,704	1,071,361
South Carolina	Columbia	34,000	705,606
Georgia	Atlanta	58,000	1,184,109
Florida	Tallahassee	59,268	188,248
Alabama	Montgomery	50,722	996,992
Mississippi	Jackson	47,156	827,922
Louisiana	New Orleans	41,346	726,915
Arkansas	Little Rock	52,198	484,471
Tennessee	Nashville	45,600	1,258,520
Kentucky	Frankfort	37,680	1,321,011
Ohio	Columbus	39,964	2,665,260
Indiana	Indianapolis	33,809	1,680,637
Illinois	Springfield	55,410	2,539,891
Michigan	Lansing	56,451	1,187,234
Wisconsin	Madison	53,924	1,064,985
Missouri	Jefferson City	65,350	1,721,295
Iowa	Des Moines	55,045	1,192,092
Minnesota	St. Paul	83,531	446,056
Texas	Austin	274,356	818,899
California	Sacramento	188,981	582,031
Oregon	Salem	95,274	101,883
Kansas	Topeka	81,318	373,299
Nevada	Carson City	112,090	58,711
Nebraska	Lincoln	75,995	129,322
		1,992,436	38,203,210

TERRITORIES.			
District of Columbia	Washington	60	131,700
Washington	Olympia	69,994	37,432
Idaho	Boisé City	86,294	20,583
Montana	Helena	143,776	39,895
Dakota	Yankton	150,932	40,501
Wyoming	Cheyenne	97,883	11,518
Colorado	Denver	104,500	47,164
Utah	Salt Lake	84,476	99,581
Arizona	Tucson	113,916	41,710
New Mexico	Santa Fé	121,201	111,303
Indian	Tahlequah	68,991	68,152
Alaska	Sitka	577,390	70,461
Total		3,611,849	38,923,210

Height of Some of the Principal Mountains.

		Feet.
North America	Mount St. Elias, Alaska	17,900
"	Popocatepetl, Mexico (volcano)	17,717
"	Mount Brown, British America	16,000
"	Mount Whitney, California	14,887
"	Mount Shasta, California	14,440
"	Fremont's Peak, Wyoming Territory	13,570
"	Mount Hood, Oregon	11,225
South America	Aconcagua, Chili	23,500
"	Chimborazo, Ecuador (volcano)	21,424
"	Sorata, Bolivia	21,286
"	Arequipa, Peru	20,320
"	Cotapaxi, Ecuador	18,875
Europe	Elbruz (highest of Caucasus Mts.)	18,526
"	Blanc (Alps)	15,780
"	Highest of the Pyrenees	11,200
"	Mount Etna, Sicily (volcano)	10,874
"	Mount Olympus, Greece	8,200
"	Mount Vesuvius, Italy (volcano)	3,948
Africa	Killima-Njaro, Central Africa	20,000
"	Kenia, Central Africa	18,000
"	Mts. of Abyssinia (highest)	15,000
"	Teneriffe, Canary Islands	12,182
"	Atlas Mts. (highest)	11,400
Asia	Everest, Himalaya Mts. (highest in world)	29,100
"	Kunchinginga, Himalaya Mts.	28,156
"	Dhawalaghiri, Himalaya Mts.	26,826
"	Hindoo Koosh Mts. (highest)	20,000
"	Ararat, Turkey	16,960
"	Mount Fuji, Japan	14,177
Islands	Mauna Loa, Sandwich Islands	14,000
"	Ophir, Sumatra	13,842
"	Owen Stanley, Papua	13,205
"	Semero, Java	12,000
"	Egmont, New Zealand	8,840
"	Australian Alps (highest)	7,500
"	Kilauea, Sandwich Islands (volcano)	6,000

Length of Some of the Principal Rivers.

		Miles.
North America	Missouri, to junction with the Mississippi	2,900
"	Missouri, to the sea, longest in the world	4,200
"	Mississippi proper	2,800
"	Mackenzie	2,300
"	St. Lawrence	2,000
"	Arkansas	2,000
"	Yukon	1,600
"	Rio Grande	1,500
"	Columbia	1,020
South America	Amazon	3,750
"	Rio de la Plata (including the Paraná)	2,300
"	Madeira	2,000
"	Orinoco	1,550
"	San Francisco	1,550
Europe	Volga	2,000
"	Don	1,960
"	Danube	1,800
"	Dnieper	1,080
"	Rhine	880
"	Dwina	864
Africa	Nile	4,000
"	Congo	3,500
"	Niger	3,000
"	Zambesi	1,600
"	Senegal	1,200
"	Orange	1,000
Asia	Yenisei	3,400
"	Yang-tse-Kiang	3,320
"	Obe	3,000
"	Hoang-Ho	2,800
"	Lena	2,700
"	Amoor	2,650
"	Cambodia	2,000
"	Indus	1,850
"	Irrawaddy	1,200
Australia	Murray	1,500

POPULATION OF SOME OF THE PRINCIPAL CITIES AND TOWNS OF THE WORLD.

From the UNITED STATES CENSUS of 1870, the ALMANACH DE GOTHA for 1877, and other late Authorities.

NORTH AMERICA.

United States.

Maine.	(1870.)	(1875.)
Augusta	8,000	9,000
Portland	31,000	36,000
Bangor	18,000	18,500
Lewiston	14,000	21,000
Biddeford	10,000	11,500
New Hampshire.		
Concord	12,000	14,000
Manchester	24,000	25,000
Nashua	11,000	12,600
Dover	9,000	9,000
Portsmouth	9,000	10,000
Vermont.		
Montpelier	3,000	3,700
Burlington	14,000	17,000
Rutland	10,000	7,500
Massachusetts.*		
Boston	251,000	342,000
Charlestown	28,000	
West Roxbury	9,000	
Brighton	5,000	
Worcester	41,000	49,300
Lowell	41,000	49,700
Cambridge	40,000	47,800
Lawrence	29,000	34,900
Lynn	28,000	32,600
Fall River	27,000	45,300
Springfield	27,000	31,000
Salem	24,000	26,000
New Bedford	21,000	25,900
Taunton	19,000	20,500
Chelsea	19,000	21,000
Gloucester	15,000	16,800
Newburyport	13,000	13,300
Fitchburg	11,000	12,300
Pittsfield	11,000	12,300
Plymouth	6,200	6,400
Rhode Island.*		
Providence	69,000	101,000
Newport	12,500	14,000
Woonsocket	11,500	13,600
Warwick	10,500	11,600
Pawtucket	6,600	18,500
Westerly	4,700	5,400
Connecticut.		
Hartford	37,200	50,000
New Haven	51,000	58,600
Bridgeport	19,000	23,500
Norwich	17,000	17,500
Norwalk	12,100	14,000
Waterbury	11,000	13,700
Meriden	10,500	12,000
New London	10,000	11,000
Middletown	7,000	7,100
New York.*		
Albany	69,000	86,000
New York	942,000	1,046,000
Brooklyn	396,000	485,000
Buffalo	118,000	135,000
Rochester	62,000	82,000
Troy	44,500	48,800
Syracuse	43,000	48,300
Utica	28,800	32,100
Oswego	20,900	22,500
Poughkeepsie	20,100	19,900
Auburn	17,200	18,400
Newburg	17,000	17,300
Elmira	15,900	20,500
Cohoes	15,400	17,500
Yonkers	12,700	17,300
Binghamton	12,700	15,500
Lockport	12,400	12,600
Schenectady	11,000	12,700
Rome	11,000	11,900
Rondout	10,100	20,500
Kingston	6,300	
Long Island City	4,000	15,600
Ogdensburg	10,000	10,200
Watertown	9,300	10,000
Pennsylvania.		
Harrisburg	23,000	30,000
Philadelphia	674,000	818,000
Pittsburgh	86,000	130,000
Allegheny	53,000	70,000
Scranton	35,000	45,000
Reading	34,000	42,000
Lancaster	20,000	25,000
Erie	19,000	27,000
Williamsport	16,000	18,000
Allentown	14,000	18,000
Pottsville	12,000	16,000
York	11,000	13,000
Easton	11,000	16,500
Norristown	11,000	14,000
Altoona	11,000	15,000
Wilkes-Barre	10,000	12,500
Chester	9,500	14,000
Titusville	8,600	10,000
Danville	8,400	8,200

New Jersey.*	(1870.)	(1875.)
Trenton	23,000	25,000
Newark	105,000	123,000
Jersey City	83,000	109,000
Paterson	34,000	39,000
Elizabeth	21,000	25,000
Hoboken	20,000	25,000
Camden	20,000	34,000
New Brunswick	15,000	17,000
Delaware.		
Dover	1,900	2,200
Wilmington	31,000	40,000
Maryland.		
Annapolis	5,800	6,000
Baltimore	267,000	303,000
Frederick	8,500	9,000
Cumberland	8,100	12,000
District of Columbia.		
Washington	109,000	136,000
Georgetown	11,000	14,000
Virginia.		
Richmond	51,000	72,500
Norfolk	19,000	26,000
Petersburg	19,000	20,000
Alexandria	13,600	14,000
Portsmouth	10,500	11,000
Lynchburg	6,800	14,000
West Virginia.		
Wheeling	19,000	26,000
Parkersburg	5,500	7,000
Charleston	3,200	5,500
Harper's Ferry	1,500	5,400
North Carolina.		
Raleigh	7,800	15,000
Wilmington	13,500	18,000
South Carolina.		
Columbia	9,300	
Charleston	49,000	57,000
Georgia.		
Atlanta	22,000	32,000
Savannah	28,000	29,000
Augusta	15,000	18,000
Macon	11,000	15,000
Florida.		
Tallahassee	2,000	
Jacksonville	7,000	11,500
Key West	5,000	
Alabama.		
Montgomery	11,000	15,000
Mobile	32,000	35,000
Mississippi.		
Jackson	4,200	6,000
Vicksburg	12,000	13,000
Natchez	9,000	10,000
Louisiana.		
New Orleans	191,000	195,000
Baton Rouge	6,500	
Arkansas.		
Little Rock	12,000	19,500
Tennessee.		
Nashville	26,000	28,000
Memphis	40,000	65,000
Knoxville	8,700	11,400
Chattanooga	6,100	12,000
Kentucky.		
Frankfort	5,400	5,400
Louisville	101,000	120,000
Covington	25,000	30,000
Newport	15,000	18,000
Lexington	14,800	15,000
Ohio.		
Columbus	31,000	43,000
Cincinnati	216,000	270,000
Cleveland	93,000	140,000
Toledo	32,000	54,000
Dayton	30,000	33,400
Sandusky	13,000	16,000
Springfield	13,000	18,000
Hamilton	11,000	13,000
Portsmouth	11,000	14,000
Zanesville	10,000	18,000

Indiana.	(1870.)	(1875.)
Indianapolis	48,200	100,000
Evansville	21,800	35,000
Fort Wayne	17,700	24,600
Terre Haute	16,000	20,000
New Albany	15,000	20,000
Lafayette	14,000	18,000
Madison	11,000	12,000
Richmond	9,500	11,500
Logansport	9,000	15,000
Illinois.		
Springfield	17,000	
Chicago	299,000	425,000
Quincy	24,000	30,000
Peoria	23,000	30,600
Bloomington	15,000	22,000
Aurora	11,000	14,400
Rockford	11,000	15,000
Galesburg	10,000	13,000
Jacksonville	9,200	12,000
Alton	8,700	12,000
Belleville	8,100	12,000
Cairo	6,300	10,000
Michigan.*		(1874.)
Lansing	5,200	7,500
Detroit	80,000	101,000
Grand Rapids	17,000	26,000
Jackson	11,000	14,000
East Saginaw	11,000	17,000
Kalamazoo	9,200	12,000
Wisconsin.*		(1875.)
Madison	9,200	10,100
Milwaukee	71,000	101,000
Fond du Lac	13,000	16,000
Oshkosh	13,000	17,000
Racine	10,000	13,300
Janesville	8,800	10,100
Missouri.*		(1876.)
Jefferson City	4,400	5,600
St. Louis	311,000	450,000
Kansas City	32,000	32,700
St. Joseph	20,000	23,100
Hannibal	10,000	10,000
Iowa.*		(1875.)
Des Moines	12,000	15,800
Davenport	20,000	21,100
Dubuque	18,000	23,500
Burlington	15,000	19,700
Keokuk	10,90	12,000
Council Bluffs	10,000	9,200
Minnesota.		
St. Paul	20,000	34,000
Minneapolis	13,000	26,000
Texas.		
Austin	4,400	16,000
Galveston	14,000	35,000
San Antonio	12,000	17,000
Houston	9,400	25,700
California.		
Sacramento	16,000	
San Francisco	149,000	275,000
Oakland	11,000	
Stockton	10,000	14,000
San José	9,100	
Oregon.		
Salem	1,100	12,500
Portland	8,300	
Kansas.*		
Topeka	5,800	7,300
Leavenworth	18,000	15,200
Lawrence	8,300	7,300
Atchison	7,000	11,000
Nevada.		
Carson City	3,000	
Virginia City	7,000	20,000
Nebraska.		
Lincoln	2,500	
Omaha	16,000	20,000
Colorado.		
Denver	4,800	20,000
Territories.		
Olympia (Wash.)	1,200	2,000
Boise City (Id.)	1,000	1,500
Helena (Mont.)	3,100	3,200
Yankton (Dak.)	700	3,500
Cheyenne (Wy.)	1,500	3,000
Salt Lake City	13,000	25,000
Tucson (Ariz.)	3,200	4,000
Santa Fe	4,800	5,000
Tahlequah	1,000	1,200
Sitka (Alaska)	1,000	1,500

British America.

(1871.)	
Montreal, Queb.	107,000
Quebec, Queb.	60,000
Toronto, Ont.	56,000
Halifax, N. S.	30,000
St. John, N. B.	29,000
St. John's, N. F.	25,000
Ottawa, Ont.	22,000

Mexico.

Mexico (1873)	230,000
Guadalaxara ('73)	71,000
Puebla (1873)	68,000
Guanaxuato (1873)	63,000
Vera Cruz (1873)	10,000
Tampico (1873)	8,000
Acapulco (1873)	8,000

Central America.

Guatemala (1874)	45,000

West Indies.

Havana	230,000
Santiago	96,000
Matanzas	45,000
Port-au-Prince ('75)	35,000
Kingston, Jamaica	31,000
St. John, P. R.	18,000
San Domingo	16,000
Spanish Town	7,000

SOUTH AMERICA.

Venezuela.	
Caraccas (1873)	49,000
Valencia (1873)	29,000
Maracaybo (1873)	22,000
La Guayra (1873)	7,000
U. S. of Colombia.	
Bogota (1870)	50,000
Panama (1870)	18,000
Popayan (1870)	16,000
Cartagena (1870)	8,000
Aspinwall (1870)	5,000
Ecuador.	
Quito ([illegible])	76,000
Guayaquil (1870)	26,000
Cuenca (1870)	25,000
Peru.	
Lima (1871)	160,000
Cuzco (1871)	40,000
Callao (1871)	30,000
Bolivia.	
La Paz (1865)	76,000
Sucre (1865)	24,000
Potosi (1865)	23,000
Cobija (1865)	2,500
Chili.	
Santiago (1875)	148,000
Valparaiso (1875)	98,000
Argentine Confederation.	
Buenos Ayres ('69)	178,000
Cordova (1869)	29,000
Rosario (1869)	23,000
Tucuman (1869)	18,000
Mendoza	8,000
Uruguay.	
Montevideo ('72)	105,000
Paraguay.	
Asuncion	48,000
Concepcion	3,000
Brazil.	
Rio Janeiro ('72)	275,000
Bahia (1872)	129,000
Pernambuco ('72)	117,000
Maranham ('72)	32,000
Para (1872)	25,000
Guiana.	
Georgetown	35,000
Paramaribo	25,000
Cayenne	8,000

EUROPE.

Norway.	
Christiania (1875)	77,000
Bergen (1875)	34,000
Christiansand ('75)	12,000
Hammerfest ('70)	2,000
Sweden.	
Stockholm (1875)	153,000
Gottenburg (1875)	66,000
Carlscrona (1875)	17,000
Upsal (1875)	13,000
Russia.	
St. Petersburg '69	668,000
Moscow (1871)	612,000
Warsaw (1876)	320,000
Odessa (1876)	163,000
Kichinev (1867)	103,000
Riga (1867)	102,000
Saratov (1867)	93,000
Kharkov (1867)	87,000
Kazan (1869)	86,000
Wilna (1867)	79,000
Kiev (1869)	80,000
Astrakhan (1869)	48,000
Cronstadt (1873)	45,000
Nijni Novgorod	41,000
Archangel (1867)	20,000
Sebastopol (1867)	11,000
England and Wales. (1876.)	
London	3,489,000
Liverpool	522,000
Birmingham	372,000
Manchester	358,000
Leeds	292,000
Sheffield	275,000
Bristol	199,000
Newcastle	140,000
Hull	137,000
Portsmouth	125,000
Leicester	114,000
Brighton	101,000
Plymouth	72,000
Durham	18,000
Lancaster	18,000
Kidderminster	11,000
(1871.)	
Merthyr-Tydfil	97,000
Swansea	57,000
Southampton	54,000
Derby	50,000
Greenwich	44,000
Yarmouth	42,000
Cardiff	36,000
Cambridge	30,000
Oxford	28,000
Dover	26,000
Richmond	11,000
Windsor	10,000
Margate	10,000
Scotland.	
Glasgow (1876)	545,000
Edinburgh (1876)	215,000
Dundee (1876)	139,000
Aberdeen (1876)	96,000
Greenock (1876)	70,000
Leith (1876)	53,000
Paisley (1876)	49,000
Inverness (1876)	18,000
Ireland.	
Dublin (1875)	315,000
Belfast (1871)	174,000
Cork (1871)	79,000
Limerick (1871)	40,000
Galway (1871)	24,000
Londonderry ('71)	21,000
Queenstown ('71)	12,000
Sligo (1871)	12,000
Denmark.	
Copenhagen ('76)	233,000
Holland.	
Amsterdam ('75)	290,000
Rotterdam (1875)	132,000
The Hague (1875)	100,000
Schiedam (1875)	22,000
Belgium.	
Brussels (1875)	183,000
Antwerp (1875)	145,000
Ghent (1875)	130,000
Liege (1875)	116,000
France.	
Paris (1875)	1,885,000
Lyons (1872)	324,000
Marseilles (1872)	313,000
Bordeaux (1872)	194,000
Lille (1872)	158,000
Toulouse (1872)	125,000
Rouen (1872)	102,000
Havre (1872)	87,000
Toulon (1872)	69,000
Brest (1872)	66,000
Versailles (1872)	62,000
Nancy (1872)	53,000
Nice (1872)	52,000
Tours (1872)	43,000
Boulogne (1872)	40,000
Calais (1870)	15,000
Spain.	
Madrid (1870)	332,000
Barcelona (1860)	190,000
Seville (1860)	118,000
Malaga (1860)	95,000
Cadiz (1860)	72,000
Granada (1860)	67,000
Saragossa (1860)	67,000
Gibraltar (1860)	18,000
Almaden (1860)	9,000
Portugal.	
Lisbon (1864)	224,000
Oporto (1864)	89,000
Germany.	
Berlin (1875)	969,000
(with suburbs)	1,054,000
Hamburg (1875)	265,000
Breslau (1875)	239,000
Dresden (1875)	197,000
Munich (1875)	193,000
Cologne (1875)	135,000
Leipsic (1875)	127,000
Hanover (1875)	107,000
Frankford-on-the-Main (1875)	103,000
Bremen (1875)	102,000
Dantzic (1875)	98,000
Strasburg (1875)	94,000
Frankford-on-the-Oder (1875)	47,000
Ulm (1875)	30,000
Austria.	
Vienna (1875)	674,000
(with suburbs)	1,021,000
Buda-Pesth ('76)	309,000
Prague (1869)	190,000
Trieste (1869)	109,000
Wieliczka (1869)	5,000
Switzerland.	
Geneva (1870)	47,000
(with suburbs)	68,000
Basle (1870)	45,000
Berne (1870)	36,000
Zurich (1870)	21,000
(with suburbs)	57,000
Italy.	
Naples (1871)	416,000
Rome (1876)	264,000
Milan (1871)	245,000
Turin (1871)	192,000
Palermo (1871)	186,000
Florence (1871)	167,000
Genoa (1871)	130,000
Venice (1871)	128,000
Bologna (1871)	89,000
Catania (1871)	84,000
Leghorn (1871)	81,000
Messina (1871)	70,000
Valetta (1871)	30,000
Syracuse (1871)	11,000
Turkey.	
Constantinople	600,000
Bucharest	222,000
Adrianople	150,000
Jassy	90,000
Galatz	80,000
Belgrade	28,000
Greece.	
Athens (1871)	45,000

AFRICA.

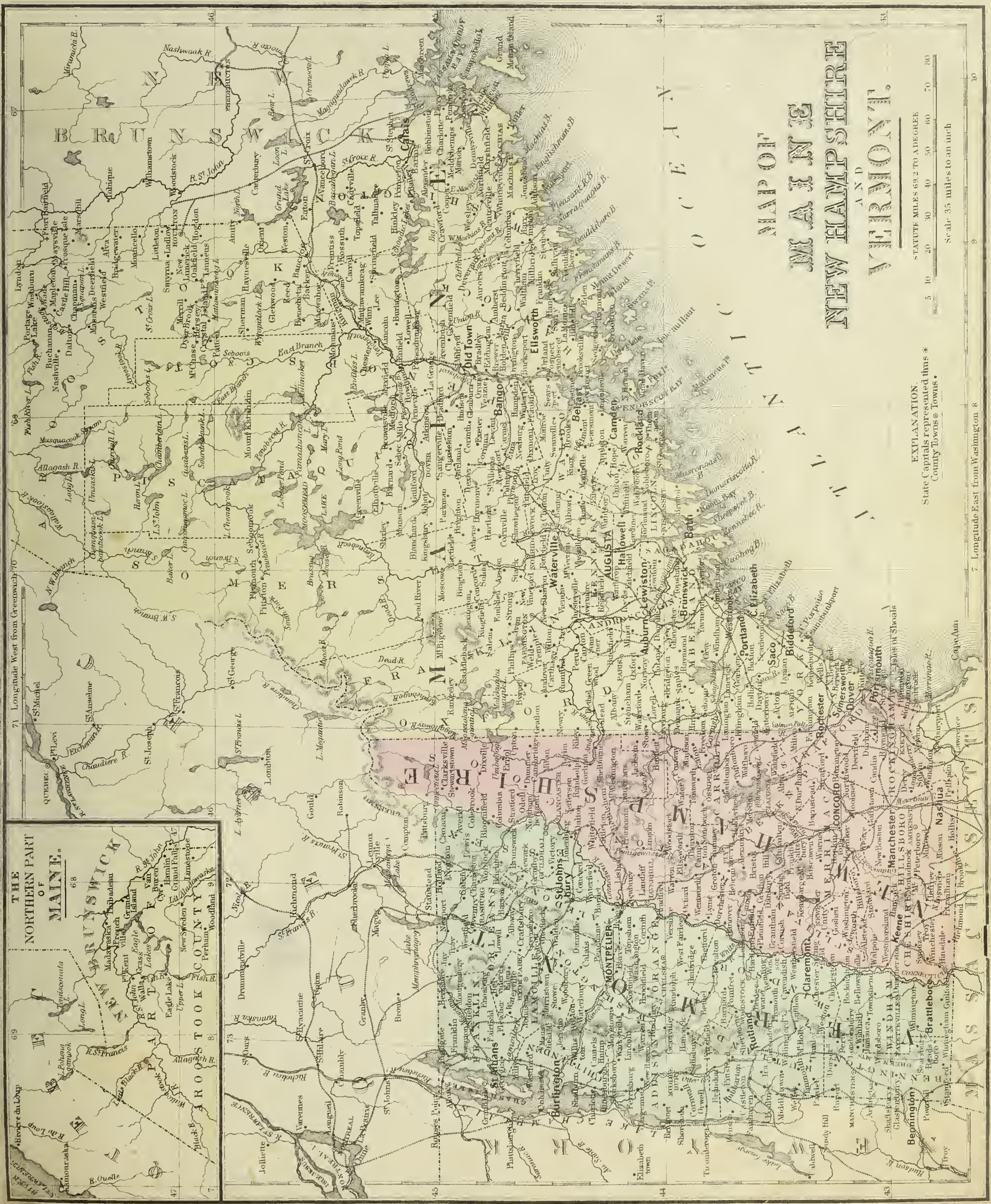
Barbary States.	
Fez	150,000
Tunis	125,000
Mequinez	100,000
Marocco	50,000
Algiers	49,000
Tripoli	18,000
Mourzouk	11,000
Egypt.	
Cairo (1872)	350,000
Alexandria (1872)	212,000
Khartoom (1872)	30,000
Damietta (1872)	29,000
Rosetta (1872)	15,000
Suez (1872)	14,000
Port Said (1872)	9,000
Cape Colony.	
Cape Town	29,000
Graham Town	5,000
Port Natal	1,000
Madagascar.	
Tananarivo	80,000
Zanzibar.	
Zanzibar	80,000

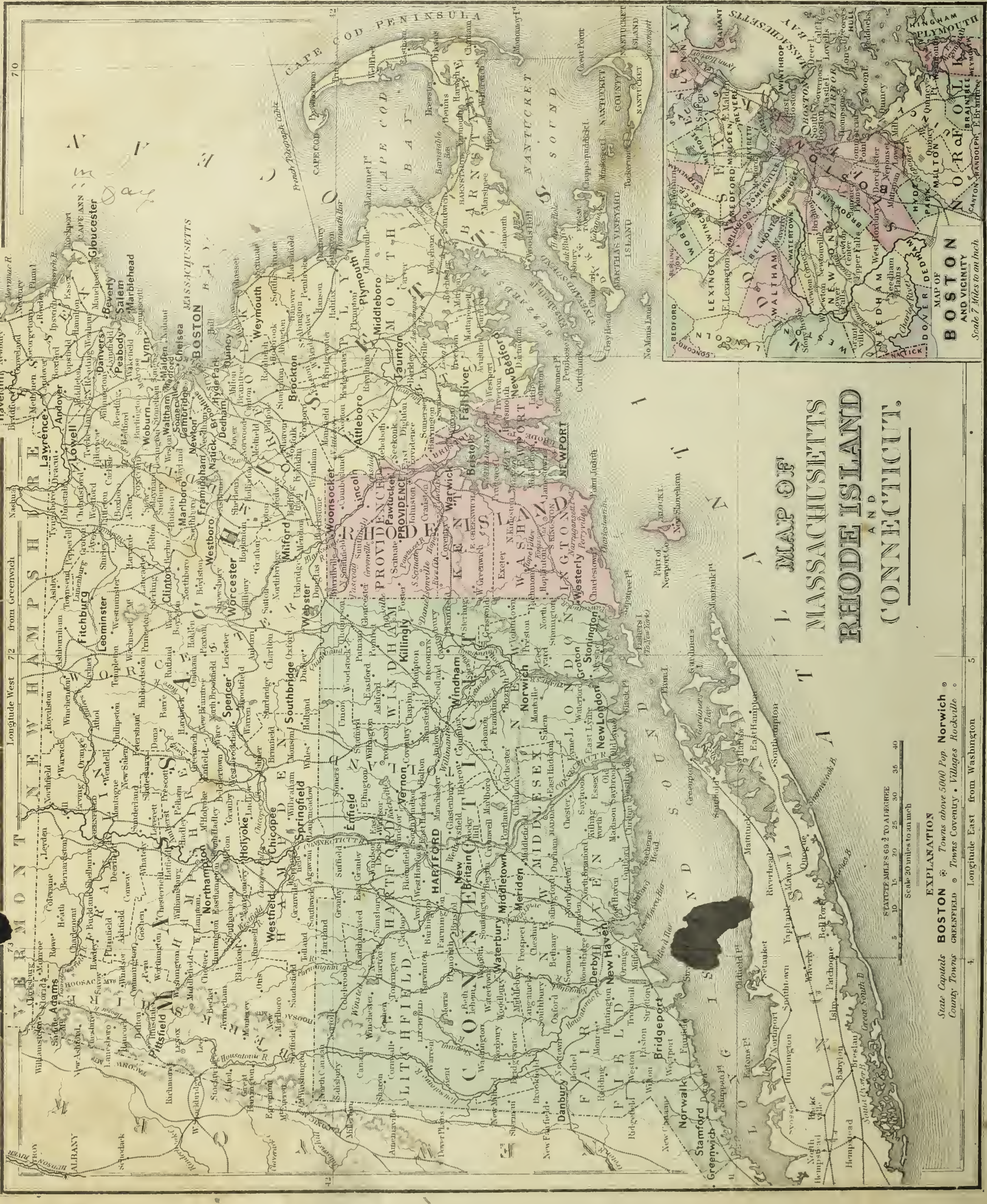
ASIA.

Turkey.	
Smyrna	150,000
Damascus	150,000
Beirout	75,000
Mecca	60,000
Trebizond	50,000
Jerusalem	28,000
Asiatic Russia.	
Bokhara (1872)	150,000
Tashkend (1872)	86,000
Tiflis (1872)	71,000
Khokan (1872)	65,000
Tobolsk (1872)	20,000
Irkoutsk (1872)	17,000
Khiva (1872)	12,000
Omsk (1872)	12,000
Tomsk (1872)	12,000
Kyachta (1872)	10,000
East Turkestan.	
Yarkand	120,000
Kashgar	80,000
Chinese Empire.	
Pekin	1,650,000
Canton	1,000,000
Foochow	600,000
Nankin	450,000
Amoy	300,000
Shanghai	277,000
Hong Kong ('74)	122,000
Ningpo	115,000
Macao	72,000
Maimatchin	2,000
Japan.	
Tokio (1875)	675,000
Kioto (1875)	375,000
Ozaka (1875)	373,000
Kagoshima ('75)	200,000
Nagasaki ('75)	80,000
Yokohama ('75)	62,000
Hindoostan.	
Calcutta (1872)	892,000
Bombay (1872)	644,000
Madras (1872)	398,000
Lucknow (1872)	285,000
Benares (1872)	175,000
Delhi (1872)	154,000
Sirinagar (1872)	133,000
Lahore (1872)	100,000
Indo-China.	
Bangkok	500,000
Singapore	150,000
Saigon	120,000
Hue	100,000
Mandalay	100,000
Rangoon	20,000
Afghanistan.	
Herat (1875)	100,000
Cabul	60,000
Candahar	50,000
Beloochistan.	
Kelat	15,000
Persia.	
Tabreez	120,000
Teheran	100,000
Ispahan	80,000
Thibet.	
Lassa	24,000
Arabia.	
Muscat	60,000
Hayel	22,000
Aden	19,000
Mocha	10,000
Malay Islands.	
Manilla (1875)	160,000
Batavia (1875)	99,000
Australasia.	
Melbourne ('74)	212,000
Sydney (1871)	135,000
Ballarat (1874)	38,000
Adelaide (1876)	32,000
Auckland (1874)	22,000
Hobart Town ('71)	19,000
Honolulu (1872)	15,000
Perth (1872)	5,000

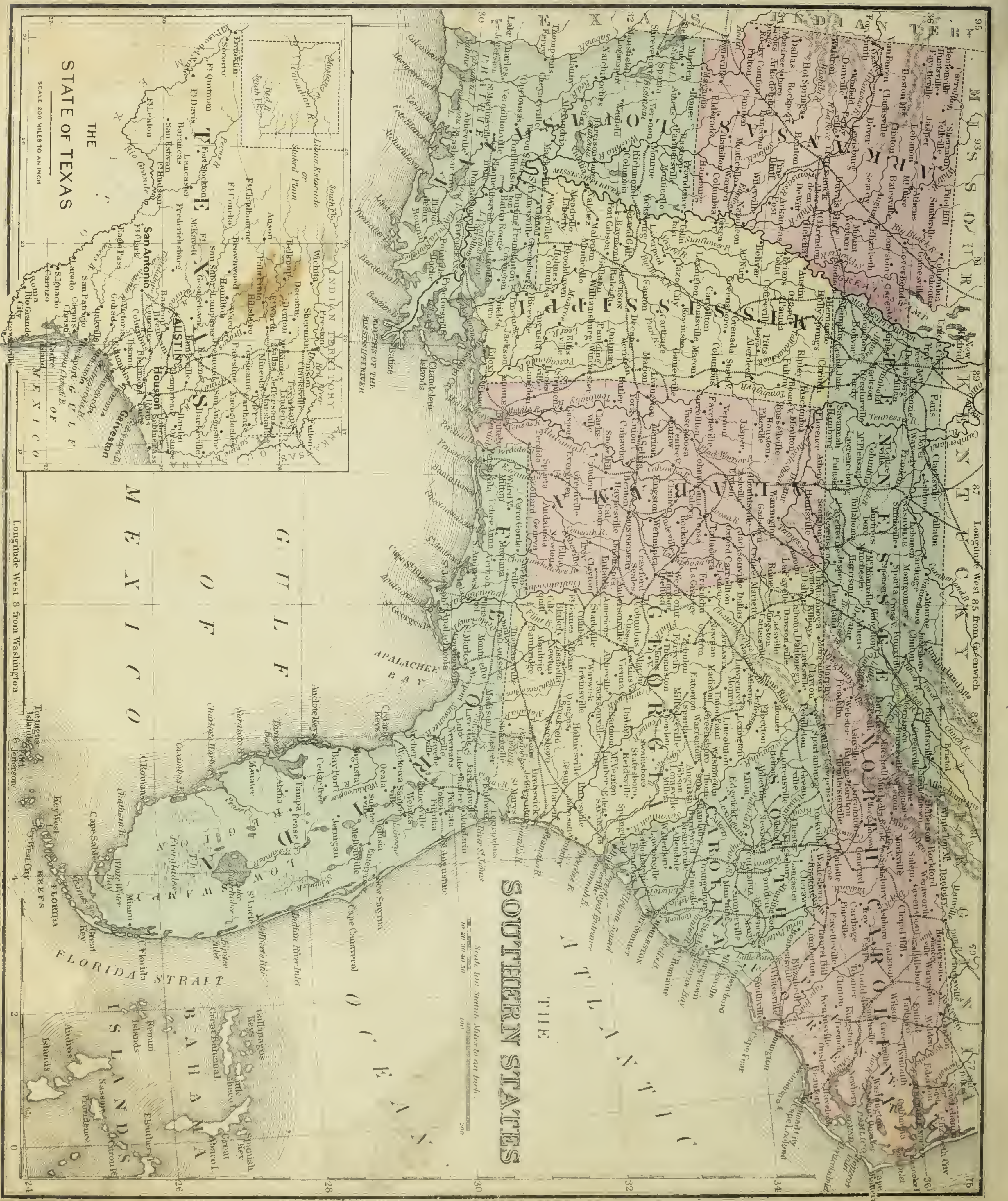
* In these States the population later than 1870 is taken from State census. In the other States, which have had no later census taken, the figures are from estimates given in Report of U. S. Commissioner of Education for 1875, and from local authorities. The population of the larger cities is given in nearest Even Thousands, that of the smaller places in nearest Even Hundreds.

REFERENCE MAP No 1




MAP OF
MASSACHUSETTS
RHODE ISLAND
AND
CONNECTICUT.
EXPLANATION
State Capitals BOSTON Towns above 5000 Pop Norwich
County Towns GREENFIELD Towns Coventry Villages Rockville
STATUTE MILES 69½ TO A DEGREE
Scale 20 miles to an inch
Longitude West 72 from Greenwich
Longitude East from Washington
MAP OF
BOSTON
AND VICINITY
Scale 7 Miles to an Inch
CAPE COD PENINSULA
MASSACHUSETTS BAY
CAPE COD BAY
NANTUCKET SOUND
LONG ISLAND SOUND
VERMONT
NEW HAMPSHIRE
CONNECTICUT
RHODE ISLAND
BOSTON
PROVIDENCE
NEWPORT
HARTFORD
NEW HAVEN

REFERENCE MAP No. 3


THE SOUTHERN STATES
Scale 100 Statute Miles to an Inch.
THE STATE OF TEXAS
SCALE 200 MILES TO AN INCH
GULF OF MEXICO
ATLANTIC OCEAN
BAHAMA ISLANDS
FLORIDA STRAIT
APALACHEE BAY
Longitude West 85 from Greenwich
Longitude West 8 from Washington

REFERENCE MAP No 5

REFERENCE MAP No. 6

REFERENCE MAP No. 7

MAP OF THE BRITISH PROVINCES OF NORTH AMERICA
STATUTE MILES 69 1/2 TO A DEGREE
Scale 150 miles to an inch
MAP OF THE WEST INDIES,
STATUTE MILES 69 1/2 TO A DEGREE
Scale 220 miles to an inch
GULF OF MEXICO
ATLANTIC OCEAN
GULF OF ST LAWRENCE
CANADA
NEW BRUNSWICK
NOVA SCOTIA
BAHAMA ISLANDS
Longitude West from Washington
Longitude East from Washington

Mary Howard's Book

Preservation Review
5/85

COWPERTHWAIT & CO.

EDUCATIONAL PUBLISHERS

Nos. 628 and 630 Chestnut Street, Philadelphia,

INVITE ATTENTION TO THEIR

NEW AND VALUABLE SCHOOL PUBLICATIONS

Warren's Geographies.

Warren's New Primary Geography.
Warren's New Common School Geography.
Warren's New Physical Geography.

Warren's Brief Course in Geography.

This Series has just been thoroughly and carefully revised, and is now printed from an entirely new set of Electrotype plates.

It gives full accounts of all the recent discoveries and changes in boundaries, and presents a complete Geographical Course adapted to grades of schools, forming the most compact and Economical Series published.

Warren's Brief Course in Geography is a new work, intended as a Shorter Course for those who have no time for a more extended study of the subject.

The Brief Course and the Physical form a popular Two-Book Series.

Hagar's Series of Mathematics.

Hagar's Primary Lessons in Numbers.
Hagar's Elementary Arithmetic.
Hagar's Common School Arithmetic.
Hagar's Elementary Algebra.
Hagar's Elementary Geometry. (In Press.)

For Teachers.

Dictation Problems and Reviews in Arithmetic.
Key to Hagar's Common School Arithmetic.
Key to Hagar's Elementary Algebra.
Key to Hagar's Elementary Geometry. (In Press.)

These books are thoroughly up to the times, and especially adapted to the improved methods of instruction that now prevail in the best schools.

Mental and written exercises are combined in each book of this Series. The methods and processes are such as are now used by business men, and the arrangement of the books is such, that either the Primary Lessons and the Elementary Arithmetic, or the Primary Lessons and the Common School Arithmetic, provide a course complete in two books.

No other Series is so economical of the time of the student or so practical [illegible] teaching. It is believed that the use of these books will save one-fourth of the time usually devoted to this study.

Greene's Grammars.

Greene's Introduction to English Grammar.
Greene's New English Grammar.
Greene's New Analysis of the English Language.

Greene's Language Series.

Thought and Expression.—Part I.
Thought and Expression.—Part II. (In Press.)
Outlines of English Grammar. (In Press.)

These Books form two complete Series, adapted to the different grades of city and country schools; but each series and each book may be used independently.

Prof. GREENE was the first to introduce the methods of teaching [illegible] by the various **Language Text-Books**, and it is believed that these [illegible] are far more practical than any heretofore published on this subject.

Monroe's Readers and Spellers.

Monroe's First Reader. Monroe's Fourth Reader.
Monroe's Second Reader. Monroe's Fifth Reader.
Monroe's Third Reader. Monroe's Sixth Reader.

Monroe's First Steps in Spelling.
Monroe's Practical Speller.

Monroe's Primer.
Monroe's First Reader. (Leigh Type Edition.)
Monroe's First Reader. (German-English Edition.)

Monroe's Vocal Gymnastics.

MONROE'S READING CHARTS.—48 Nos.

This Series prepared by Prof. LEWIS B. MONROE, *Dean of Boston University School of Oratory*, contains many original and valuable features.

The thorough and enthusiastic study which the Author has given to this subject, and his long and successful experience as a Practical Instructor of Teachers, Clergymen, Public Speakers and Readers, have eminently fitted him for the task he has so thoroughly performed.

These Books are profusely Illustrated by the best artists, and [illegible] execution are superior to any school books now published. The Series is so arranged that the First, Second, Third and Fifth Readers form an Abridged Series, peculiarly adapted to the wants of ungraded schools [illegible].

Teachers and School Officers are cordially invited to correspond freely with us in regard to any of our Publications.

New Descriptive Catalogue sent Free. Liberal Terms will be given for First Introduction.